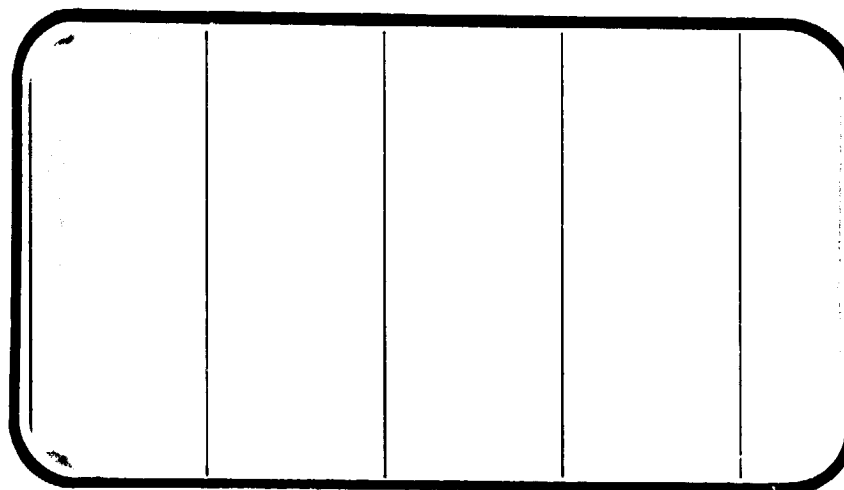




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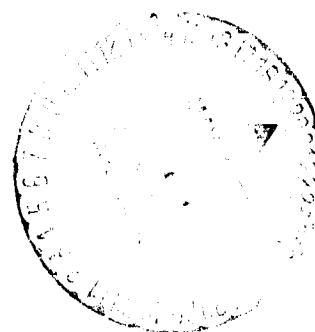
(NASA-CR-141520) WIND TUNNEL TESTS OF AN
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SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT



JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA Management services

SPACE DIVISION



CHRYSLER
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VOLUME III

WIND TUNNEL TESTS OF AN 0.019-SCALE SPACE SHUTTLE
INTEGRATED VEHICLE -2A CONFIGURATION (MODEL 14-OTS)
IN THE NASA AMES 8 X 7-FOOT UNITARY WIND TUNNEL
(IA12C)

By

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Prepared under NASA Contract Number NAS9-13247

By

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Johnson Space Center
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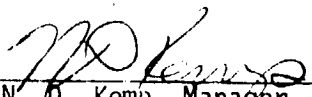
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WIND TUNNEL TESTS OF AN 0.019-SCALE SPACE SHUTTLE
INTEGRATED VEHICLE -2A CONFIGURATION (MODEL 14-OTS) IN THE
NASA AMES 8 X 7-FOOT UNITARY WIND TUNNEL (IA12C)

By

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ABSTRACT

This report contains information concerning a wind tunnel test of the 0.019-scale Space Shuttle Integrated Vehicle in the Ames 8 x 7-foot Unitary Wind Tunnel. The test started 11 July 1973 for a total of 133 runs and 165 charge hours. The test identification number is IA12C.

The purpose of the test was to determine the effects of cold jet gas plumes on (1) the integrated vehicle longitudinal and lateral-directional force data, (2) exposed wing hinge moment, (3) wing pressure distributions, (4) orbiter MPS external pressure distributions, and (5) model base pressures. An investigation was undertaken to determine the similarity between solid and gaseous plumes; fluorescent oil flow visualization studies were also conducted.

This report is published in three volumes. Volume I contains plotted force data and tabulated listings of the force and nozzle pressure data. Volume II contains plotted wing pressure data while Volume III contains the corresponding tabulated data listing.

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COEFFICIENT SCHEDULES:

(A): CAF, CAB, CN, CLM vs. α (B): CY, CBL, CYN vs. β (C) C_L vs. X/C
CN vs. CLM CY vs. CYN

Note: Nozzle pressure data do not appear in plotted form. See Appendix B (Volume I) for listing of these data.

NOMENCLATURE General

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
C _p	CP	pressure coefficient; $(p_1 - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; N/m ² , psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$, N/m ² , psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
ρ		mass density; kg/m ³ , slugs/ft ³

Reference & C.G. Definitions

A _b		base area; m ² , ft ²
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
\bar{L}_{REF} \bar{c}	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m ² , ft ²
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
∞	free stream

NOMENCLATURE (Continued)

Body-Axis System

<u>SYMBOL</u>	<u>SADSCAC SYMBOL</u>	<u>DEFINITION</u>
C_N	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
C_A	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_{A_b}	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
C_{A_f}	CAF	forebody axial force coefficient; $C_A - C_{A_b}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
C_n	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
C_l	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$

Stability-Axis System

C_L	CL	lift coefficient; $\frac{\text{lift}}{qS}$
C_D	CD	drag coefficient; $\frac{\text{drag}}{qS}$
C_{D_b}	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
C_{D_f}	CDF	forebody drag coefficient; $C_D - C_{D_b}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
C_n	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
C_l	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$
L/D	L/D	lift-to-drag ratio; C_L/C_D
L/D_f	L/DF	lift to forebody drag ratio; C_L/C_{D_f}

NOMENCLATURE (Continued)

ADDITIONS TO STANDARD NOMENCLATURE

<u>Symbol</u>	<u>Description</u>
Ab_{ACPS}	Attitude control propulsion system base area, ft^2 (total for two)
Ab_{EOHT}	External tank total base area (cavity plus model base), ft^2
Ab_{OMS}	Base area of orbital maneuvering system (minus projected area of OMS nozzle), ft^2 (total for two)
Ab_{OMSN}	Nozzle exit area of OMS, ft^2 (total for two)
Ab_{ORB}	Total orbiter base area (minus projected exit area of MPS nozzles), ft^2
Ab_{SRM}	SRM shroud base area (minus projected nozzle exit area), (total for two), ft^2
Ac_{EOHT}	External tank cavity area, ft^2
Ac_{ORB}	Orbiter cavity area, ft^2
Ac_{SRM}	SRM cavity area, ft^2 (total for two)
AN_{ORB}	Total exit area of (3) orbiter MPS nozzles, ft^2
AN_{SRM}	Total exit area of (2) SRM nozzles, ft^2
a	Distance from N_1 gage to MRP (positive forward of MRP), inches
b_w	orbiter exposed wing panel semi-span (distance from exposed root chord to tip chord.), inches
\bar{c}_e	Elevon M.A.C. length, inches
\bar{c}_r	Rudder M.A.C. length, inches
CA_{BAL}	Balance chord force coefficient (uncorrected).
CA_{bACPS}	Attitude control maneuvering system base chord force coefficient
CA_{bEOHT}	External tank base chord force coefficient (based on Ab_{EOHT})
CA_{bEOHT}^*	External tank base chord force coefficient (based on Ac_{EOHT})
CA_{bOMS}	Orbital maneuvering system base chord force coefficient.

NOMENCLATURE (Continued)

<u>Plot Symbol</u>	<u>Symbol</u>	<u>Description</u>
	$C_{A_{bOMSN}}$	Orbital maneuvering system nozzle base chord force coefficient
	$C_{A_{bORB}}$	Orbiter base chord force coefficient (based on A_{bORB})
	$^*C_{A_{bORB}}$	Orbiter base chord force coefficient (based on $A_{C_{ORB}}$)
	$C_{A_{bSRM}}$	SRM base chord force coefficient (based on A_{bSRM})
	$^*C_{A_{bSRM}}$	SRM base chord force coefficient (based on $A_{C_{SRM}}$)
	$C_{A_{CEOHT}}$	External tank cavity chord force coefficient (corrected to base pressure)
	$^*C_{A_{CEOHT}}$	External tank cavity chord force coefficient (based on $A_{C_{CEOHT}}$ and EOHT cavity pressures)
	$C_{A_{CORB}}$	Orbiter cavity chord force coefficient (corrected to base pressure)
	$^*C_{A_{CORB}}$	Orbiter cavity chord force coefficient (based on $A_{C_{CORB}}$ and orbiter cavity pressures)
	$C_{A_{CSR}}$	SRM cavity chord force coefficient (corrected to base pressure)
	$^*C_{A_{CSR}}$	SRM cavity chord force coefficient (based on $A_{C_{CSR}}$ and SRM cavity pressures)
	$C_{A_{NORB}}$	Orbiter nozzle chord force coefficient
	$C_{A_{NSRM}}$	SRM nozzle chord force coefficient
	C_{A_f}	Ascent vehicle forebody chord force coefficient
	C_{A_T}	Ascent vehicle total chord force coefficient
	C_{B_R}	Ascent vehicle rolling moment coefficient
	C_{B_W}	Wing bending moment coefficient about exposed root chord
CHEO, CHEI	$C_{H_e}()$	Elevon hinge moment coefficient (Subscript denotes inboard or outboard)

NOMENCLATURE (Continued)

<u>Plot Symbol</u>	<u>Symbol</u>	<u>Description</u>
CHW	C_{H_r}	Rudder hinge moment coefficient
CBW	C_{H_W}	Wing torsional moment coefficient
	C_{m_f}	Ascent vehicle forebody pitching coefficient
	C_{m_t}	Ascent vehicle total pitching moment coefficient
	$C_{m_{BAL}}$	Balance pitching moment coefficient
	C_N	Ascent vehicle normal force coefficient
CNW	C_{N_W}	Normal force coefficient on one exposed wing panel
	$C_P()$	Wing, base, cavity, and upper MPS nozzle pressure coefficient
	C_Y	Ascent vehicle side force coefficient
	C_{Y_n}	Ascent vehicle yawing moment coefficient
	\bar{C}_W	Mean aerodynamic chord of exposed wing panel (based on S_W), inches
	d	Distance from N_2 gage to MRP (positive forward of MRP) inches
	e	Distance from MRP to balance centerline (positive above MRP)
	f	Distance from MRP to Y_1 gage (positive forward of MRP)
	$G_P()$	Gimbal pitch angle of nozzle from null position (denoted by subscript), degrees
	$G_Y()$	Gimbal yaw angle of nozzle from null position (denoted by subscript), degrees
	g	Distance from MRP to Y_2 gage (positive forward of MRP), inches
	i	Incidence angle of orbiter reference plane with respect to EOHT reference plane, degrees
	$K_e()$	Elevon hinge moment gage calibration factor (subscript denotes inboard or outboard) in.-lb/cts
	$K_{r_{pe}}$	Ratio of Measured to Theoretical Exit Pressure $P_{e \text{ meas}}/P_{e \text{ true}}$

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Description</u>
K_r	Rudder hinge moment gage calibration factor, in.-lbs/cts
K_{ij}	Wing gage calibration factor, in.-lb/ct where i = gage number and j = order of K in the second degree calibration curve fit
l_{REF}	Longitudinal reference length, inches
$m_{1,2,3}$	Wing strain gage output (uncorrected for interactions) in.-lbs; where 1 is the inboard bending gage, 2 is the outboard bending gage, and 3 is the torsion gage.
$M_{1,2,3}$	Wing strain gage output which has been corrected for interactions, in.-lbs; where 1 is the inboard bending gage, 2 is the outboard bending gage, and 3 is the torsion gage.
M_o	Tunnel freestream mach number.
$m'_{1,2,3}$	Wing strain gage output, raw data counts, where 1 is the inboard bending gage, 2 is the outboard bending gage, and 3 is the torsion gage.
$m'_e()$	Elevon hinge moment gage output, raw data counts where subscript denotes inboard or outboard panel.
m'_r	Rudder hinge moment gage output, raw data counts.
$MRP(X,Y,Z)$	Moment reference point in X,Y,Z coordinates, inches
N_1	Forward normal force gage output, pounds
N_2	Aft normal force gage output, pounds
N_w	Normal force on exposed wing panel, pounds.
$P_c()$	Nozzle plenum total pressure denoted by a subscript

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Description</u>
$P_e()$	Nozzle exit static pressure (denoted by a subscript), psia
$P()$	Model pressure, psfa
P_o	Tunnel static pressure, psfa
P_T	Tunnel total pressure, psfa
q	Tunnel freestream dynamic pressure, psf
$RPC()$	Ratio of plenum total pressure to P_T , denoted by a subscript
$RP_e()$	Ratio of nozzle exit static pressure to P_T , denoted by a subscript
RN	Tunnel reynolds number, per foot
S_e	Elevon area (total one side) ft^2
S_r	Rudder area, ft^2
S_w	Area of one exposed wing panel (includes glove area), ft^2
S_{REF}	Reference area, ft^2
T_o	Tunnel freestream static temperature, °R
T_T	Tunnel total temperature, °R
W_{F1}	Model pressure weighting factor, either 0 or 1
X_w	Distance between wing bending gage m_1 and m_2 , inches

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Description</u>
XCP	Model station for center of pressure (X_T), inches
XCP _W	Model station of exposed wing panel center of pressure location (X_T), inches
X _O	Orbiter longitudinal station, inches
X _{HL}	Orbiter station of exposed wing torsional axis, inches
X _T	EOHT longitudinal station, inches
y _W	Spanwise distance from the exposed wing root chord to the m ₂ gage (positive when m ₂ gage is outboard of reference station), model scale inches
Y _O	Orbiter spanwise station, inches
Y _{ROOT}	Orbiter spanwise station of exposed wing root chord, inches
Y _T	EOHT spanwise station, inches
YCP _W	Orbiter spanwise station of exposed wing panel center of pressure location, inches
Z _{bACPS}	Vertical distance from centroid of ACPS base area to MRP (positive above MRP), inches
Z _{bEOHT}	Vertical distance from centroid of EOHT base area to MRP (positive above MRP), inches
Z _{bOMS}	Vertical distance from centroid of OMS base area to MRP (positive above MRP), inches
Z _{bOMSN}	Vertical distance from centroid of OMS nozzle base area to MRP (positive above MRP), inches
Z _{bORB}	Vertical distance from centroid of ORB base area to MRP (positive above MRP), inches
Z _{bSRM}	Vertical distance from centroid of SRM base area to MRP (positive above MRP), inches

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Description</u>
z_{cEOHT}	Vertical distance from centroid of EOHT cavity area to MRP (positive above MRP), inches
z_{cORB}	Vertical distance from centroid of orbiter cavity area to MRP (positive above MRP), inches
z_{cSRM}	Vertical distance from centroid of SRM cavity area to MRP (positive above MRP), inches
z_{NORB}	Vertical distance from centroid of orbiter nozzle exit area to MRP (positive above MRP), inches
z_{NSRM}	Vertical distance from centroid of SRM nozzle exit area to MRP (positive above MRP), inches
δ_r	Rudder deflection, degrees
$\left(\frac{\partial m_1}{\partial m_2}\right)_{()} \cdots \left(\frac{\partial m_3}{\partial m_1}\right)_{()}$	First order interaction for wing bending and torsion gages. (1) denotes first order term in a 2nd degree curve fit, (2) denotes second order term in a 2nd degree curve fit
α, β	Ascent vehicle angle of attack and side slip respectively, degrees

NOMENCLATURE (Continued)

<u>Subscripts</u>	<u>Description</u>
a	aileron
ACPS	attitude control propulsion system
e	elevon
EOHT	external oxygen hydrogen tank
I	inboard
L	Left
O	outboard
OMS	orbital maneuvering system
OMSN	orbital maneuvering system nozzle
ORB	Orbiter
r	Rudder
R	Right
SRM	Solid Rocket Motor
T	Total
W	Wing
1	Top MPS nozzle
2	Left MPS nozzle
3	Right MPS nozzle
4	Left SRM nozzle
5	Right SRM nozzle

NOMENCLATURE (Concluded)

<u>Symbol</u>	<u>Description</u>
OPR	Ratio of orbiter chamber pressure (P_c) to freestream total pressure
SRMPR	Ratio of SRM nozzle exit pressure (P_e) to freestream total pressure
MPSRA	Orbiter MPS nozzle rotation angle (same as θ_n), deg.
POWER	ON: indicates gaseous plumes are being generated OFF: indicates gaseous plumes are not being generated
X/D	Ratio of the distance forward of the nozzle exit to the internal diameter of the nozzle exit
RUDDER	Rudder deflection, deg.
ϕ	Radial angle on MPS nozzles with $\phi = 0^\circ$ on top, $\phi = 90^\circ$ on the right side, $\phi = 180^\circ$ on bottom, and $\phi = 270^\circ$ on left side, looking forward, deg.
θ_n	Rotation angle of MPS nozzles in ball sockets (clockwise rotation as looking forward is positive), deg.
GIMBAL	GIMBAL = 1.0 ($GP1 = GY1 = 0^\circ$, $GY2 = -3.5^\circ$, $GY3 = +3.5^\circ$) GIMBAL = 2.0 ($GP1 = +11^\circ$, $GY1 = GY2 = GY3 = -9^\circ$) GIMBAL = 3.0 ($GP1 = GP2 = GP3 = +11^\circ$, $GY2 = -3.5^\circ$, $GY3 = +3.5^\circ$, $GP4 = GP5 = +7.0^\circ$) GIMBAL = 4.0 ($GP1 = -11^\circ$, $GP2 = GP3 = -8^\circ$, $GY2 = -3.5^\circ$, $GY3 = +3.5^\circ$, $GP4 = GP5 = -7^\circ$)

CONFIGURATIONS INVESTIGATED

The model tested was an 0.019-scale representation of the NASA/Rockwell configuration of the integrated space shuttle vehicle. The model had the capability of cold jet simulation of the jet plumes generated from the SRM and MPS nozzles.

The -2A configuration orbiter was rigidly attached to the EOHT at 0° incidence with respect to the EOHT centerline. The orbiter MPS nozzles were attached to the non-metric air supply system. Each nozzle could be gimballed $\pm 11^\circ$ pitch and $\pm 9^\circ$ yaw.

The orbiter righthand wing panel was instrumented with 40 static pressure taps and the lefthand wing was instrumented with a single flexure three-component moment balance. The elevon panels of the lefthand wing panel were each instrumented with a single-component moment balance.

The vertical tail rudder had the capability of being deflected $\pm 10^\circ$. The rudder panel was instrumented with a single-component moment balance.

The -4 configuration EOHT was mounted on a 2.5-inch sting mounted internal balance.

Both -2A and -4 configuration SRM's were available for testing. Each SRM was rigidly attached to the EOHT with the SRM centerline on water plane $X_T = 0.0$ in. and butt plane $Y_T = 243$ in. full scale. In addition to the baseline position the SRM's could be shifted forward 71 in. full scale. The SRM nozzles were attached to the non-metric air supply system and could be gimballed $\pm 7^\circ$ in pitch and $\pm 7^\circ$ in yaw.

Solid plumes were fabricated for the three orbiter nozzles and the two SRM nozzles with the contours simulating the Mach 3.5 gaseous plume shape.

The orbiter had three MPS nozzles whose individual gimbal points each define the origin of three separate reference systems. These reference systems are shown in Figure 1 (e). Positive indications of gimbal pitch and gimbal yaw are shown.

Figure 1 (f) is an enlarged view of one of these reference systems. All three planes shown are at right angles to one another. The dashed lines are projections of the nozzle centerline onto the pitch and yaw planes of the reference system. (α) is the angle of pitch, either up or down; (ψ) is the angle of yaw, either right or left.

Each nozzle is physically set to a gimbal angle of pitch and/or yaw by an apparatus which measures (ϕ), some radial direction in the base plane and (γ), the angle from that radial to the nozzle centerline. The ϕ sector is determined by (α) and (ψ):

ϕ	α	ψ
270° to 360°	0° to +90°	0° to +90°
180° to 270°	0° to -90°	0° to +90°
90° to 180°	0° to -90°	0° to -90°
0° to 90°	0° to +90°	0° to -90°

All test programs for this model use the symbol G_p , to denote the angle that the centerline of the nozzle is pitched (up or down), and

G_Y , as the angle that the centerline of the nozzle is yawed (right or left). Up and left are both in the positive direction when looking forward,

Since all angles are defined from the nozzle null position, the relationships are as follows:

$$(1) \quad G_P = \alpha - \alpha_{\text{null}}$$

$$(2) \quad G_Y = \psi - \psi_{\text{null}}$$

where α_{null} is the angle that the nozzle centerline is pitched from the reference system axis to null position, and ψ_{null} is the angle that the nozzle centerline is yawed from the reference system axis to null position (figure 1[f]).

The α_{null} and ψ_{null} are specified for each MPS nozzle in the dimensional data for N_9 and N_{10} . It should be noted here, that a side view of the orbiter shows that the nozzle base plate is rotated 13° from vertical (figure 1[e]). Therefore, the three independent nozzle reference systems for nozzle pitch differ from the orbiter's X_0, Y_0, Z_0 reference system by a 13° rotation angle from vertical.

The following equations were used to convert nozzle gimbal angles, α and ψ , to ϕ and γ , the two angles that the fixture uses to duplicate the given angles:

$$(1) \quad \tan \phi = \frac{-\tan \psi}{\tan \alpha}$$

$$(2) \quad \tan \gamma = \frac{\sin \phi + \cos \phi}{\tan \alpha - \tan \psi}$$

Also, $\theta = 90^\circ - \gamma$ for the following fixture settings:

TOP NOZZLE:

AERO SETTING	FIXTURE SETTING	
	ϕ	ϵ
Null & Firing $G_Y = G_P = 0$	0°	$+3^\circ$
$G_P = +11$	0°	$+14^\circ$
$G_P = -11$	180°	8°
$G_Y = +9$	288°	9.5°
$G_Y = -9$	71.7°	9.5°
$G_P = +11, G_Y = -9$	32.5°	16.5°

BOTTOM LEFT NOZZLE:

Firing (R3.5) $G_Y = -3.5$	180°	3°
$G_P = +11$	336.5°	8.7°
$G_P = -11$	193.6°	14.4°
$G_Y = +9$	256.7°	12.8°
$G_Y = -9^\circ$	118.3°	6.2°
$G_P = +11, G_Y = -9$	34.42°	9.7°
Null $G_P = 0 = G_Y$	229.4°	4.6°

BOTTOM RIGHT NOZZLE:

AERO SETTING	FIXTURE SETTING	
Firing (L3.5) $G_Y = +3.5$	180°	3°
$G_P = +11$	23.5°	8.7°
$G_P = -11$	166.2°	14.4°
$G_Y = +9$	241.8°	6.2°
$G_Y = -9$	103.3°	12.8°
$G_P = +11, G_Y = -9$	57.7°	14.7°
Null $G_P = 0 = G_Y$	130.6°	4.6°

The Ames high pressure air supply was utilized for cold jet plumes emanating from the orbiter MPS and SRM nozzles. The orbiter MPS and SRM nozzles had independent controls for separate throttling of each system of nozzles. SRM gaseous plumes could be produced without generating orbiter plumes but vice versa was not true. Plume shapes for various Mach numbers were produced by setting specific values of P_c/P_T for the orbiter nozzles and P_e/P_T for the SRM nozzles. Listed below are the pressure ratios used for nominal and off-nominal conditions.

NOZZLE	M_∞	P_c/P_∞	P_c/P_T	P_e/P_T	CONDITION
SRM	2.5	1490	87.21	.9158	nominal
	2.5	700	41.08	.4294	.471 nominal
	3.0	2686	73.13	.7679	nominal
	3.0	2686	73.13	.7679	nominal
	3.0	1440	39.20	.4116	.536 nominal
	3.0	4030	110.0	1.15	1.5 nominal
	3.5	6000	78.66	.8260	nominal *
	3.5	3312	43.42	.456	.552 nominal
	3.5	8400	110.0	1.15	1.4 nominal
ORBITER	2.5	534	31.255	.3720	nominal
	2.5	251	14.721	.1752	.471 nominal
	3.0	987	26.86	.3198	nominal
	3.0	530	14.40	.1714	.536 nominal
	3.0	1480	41.0	.480	1.5 nominal
	3.5	1820	23.86	.2840	nominal *
	3.5	1005	13.17	.1568	.552 nominal
	3.5	3090	41.0	.494	1.7 nominal

* Solid plumes available for this condition

The EOHP was mounted on the Ames 2.5-inch Task MK-III six-component internal balance. The model angle of attack was indicated by an Ames angleometer and angle of sideslip was indicated by sector read-out plus sting/balance deflections.

The lefthand wing panel was instrumented with a three-component single flexure moment balance. The elevons of the lefthand wing panel and the rudder were each instrumented with a single flexure single-component moment balance.

The righthand orbiter wing panel was instrumented with forty (40) static pressure taps. A total of sixteen (16) base and cavity taps were installed for use in correcting chord force measurements.

The orbiter MPS nozzles each had twelve (12) external static taps at various radial and longitudinal locations. The nozzles were rotated to obtain a complete pressure survey around each nozzle.

The following configuration components were tested:

<u>Component</u>	<u>Definition</u>
B ₁₀	Body
C ₅	Canopy
D ₇	Manipulator housing
F ₄	Body Flap
M ₃	Orbital maneuvering subsystem (OMS) pod
N ₈	OMS nozzles
N ₉	Orbiter nozzles
N ₁₀	Orbiter pressure nozzles
N ₁₇	SRM nozzles $M_{\infty} = 0.9, 1.2$
N ₁₈	SRM nozzles $M_{\infty} = 3.0, 3.5$
N ₂₉	SRM nozzles (mismatch)
N ₃₀	SRM nozzles forward
V ₅	Vertical tail
R ₆	Rudder
W ₈₇	Wing
E ₁₈	Elevon
X ₁₀	Transition strip
S ₆	SRM (-PA)
S ₁₀	SRM (-h)
S ₁₁	SRM (-h moved forward)
T ₁₀	EOHT

The following table summarizes integrated vehicle (OTS) configurations investigated:

<u>Configuration</u>	<u>Description</u>
O ₁	Baseline 2A orbiter B ₁₀ C ₅ D ₇ F ₄ M ₃ N ₈ N ₉ V ₅ R ₅ W ₈₇ E ₁₈ X ₁₀
O ₂	Baseline 2A orbiter with static taps on the three MPS nozzles B ₁₀ C ₅ D ₇ F ₄ M ₃ N ₈ N ₁₀ V ₅ R ₅ W ₈₇ E ₁₈ X ₁₀
O ₃	Same as O ₁ with top MPS nozzle blocked
O ₄	Same as O ₁ with lower lefthand MPS nozzle blocked
T ₁	Baseline configuration 4 EOHT T ₁₀
S ₁	Baseline configuration 4 SRM S ₁₀ N ₁₈
S ₂	Same as S ₁ shifted forward 71 in. full scale S ₁₁ N ₃₀
S ₃	Same as S ₁ but with mismatched SRM nozzles S ₁₀ N ₂₉
S ₄	Baseline 2A SRM S ₆ N ₁₈

These symbols are used as a shorthand notation to designate groups of components on the Data Set/Run Number Summary (Table IIa.).

TLST FACILITY DESCRIPTION

The Ames Research Center Unitary Plan Wind Tunnel 8- by 7-foot supersonic test circuit is a closed-return, variable-density, air-medium facility with a 16-foot-long test section. The throat has flexible sidewalls for control of tunnel Mach number. The 8- by 7-foot tunnel uses the same motors and compressors as the 9- by 7-foot circuit.

The tunnel is capable of attaining Mach numbers from 2.45 to 3.50 at Reynolds numbers from below $1.0 \times 10^6/\text{ft}$ to approximately $5.0 \times 10^6/\text{ft}$.

Models are supported, in general, from stings mounted to a body-of-revolution on a floor-to-ceiling strut system. Internal strain-gauge balances are used for force and moment data, and pressure instrumentation is provided.

Schlieren and shadowgraph equipment is available, as well as additional force, moment, and stress monitoring instrumentation for specific models.

DATA REDUCTION

The lefthand wing panel was instrumented with a single-flexure three component moment balance. This balance was temperature compensated and gave accurate measurements at all tunnel temperatures.

The two elevons on the lefthand wing panel and the rudder were each instrumented with single component moment balances. These balances were not temperature compensated and experienced large zero shifts during the test. During any specific pitch or yaw run the zero shifts were negligible. However, during a series of pitch and yaw runs the zero shifts happened at a point that cannot be determined. The sensitivity did not change. The tabulated data for these components (CH_{E_I} , CH_{E_O} , CH_R) are presented and should be used only for obtaining slopes of these measurements vs. α or β and should not be used for defining magnitude of the moment load.

Center of pressure (XCP):

$$XCP = MRP (X_T) - \frac{aN_1 + dN_2}{N_1 + N_2}$$

XCP \approx EOHT station, inches (model scale)

Ascent vehicle total chord force coefficient (C_{A_T}):

$$C_{A_T} = C_{A_{BAL}} + C_{A_{CORB}} + C_{A_{EOHT}} + C_{A_{SRM}} + C_{A_{NORB}} + C_{A_{NSRM}}$$

where:

$$\begin{aligned} C_{A_{CORB}} &= -C_{A_{CORB}}^* + C_{A_{CORB}}^* \\ C_{A_{EOHT}} &= -C_{A_{EOHT}}^* + C_{A_{EOHT}}^* \\ C_{A_{SRM}} &= -C_{A_{SRM}}^* + C_{A_{SRM}}^* \end{aligned}$$

and:

$$C_{ACORB}^* = - \frac{\sum_{i=1}^{102} C_{P_i}}{\sum_{i=1}^{102} W_{F_i}} \left(\frac{A_{CORB}}{S_{REF}} \right)$$

$$C_{ABORB}^* = - \frac{\sum_{i=1}^{204} C_{P_i}}{\sum_{i=1}^{204} W_{F_i}} \left(\frac{A_{CORB}}{S_{REF}} \right)$$

$$C_{ANORB} = + \frac{\sum_{i=1}^{204} C_{P_i}}{\sum_{i=1}^{204} W_{F_i}} \left(\frac{A_{NORB}}{S_{REF}} \right)$$

$$C_{ACEOHT}^* = - \frac{\sum_{i=1}^{304} C_{P_i}}{\sum_{i=1}^{304} W_{F_i}} \left(\frac{A_{CEOHT}}{S_{REF}} \right)$$

$$C_{ABEOHT}^* = - \frac{\sum_{i=1}^{302} C_{P_i}}{\sum_{i=1}^{302} W_{F_i}} \left(\frac{A_{CEOHT}}{S_{REF}} \right)$$

$$C_{ACSRM}^* = - \frac{\sum_{i=1}^{104} C_{P_i}}{\sum_{i=1}^{104} W_{F_i}} \left(\frac{A_{CSRM}}{S_{REF}} \right)$$

$$C_{ABSRM}^* = - \frac{\sum_{i=1}^{404} C_{P_i}}{\sum_{i=1}^{404} W_{F_i}} \left(\frac{A_{CSRM}}{S_{REF}} \right)$$

$$C_{ANSRM} = + \frac{\sum_{i=1}^{404} C_{P_i}}{\sum_{i=1}^{404} W_{F_i}} \left(\frac{A_{NSRM}}{S_{REF}} \right)$$

Ascent vehicle total pitching moment coefficient (C_{MT}):

$$C_{MT} = C_{MBAL} - C_{ACORB}^* \left[\frac{Z_{CORB}}{l_{REF}} \right] + C_{AbORB}^* \left[\frac{Z_{CORB}}{l_{REF}} \right] \\ + C_{ANORB} \left[\frac{Z_{NORB}}{l_{REF}} \right] - C_{ACEOHT}^* \left[\frac{Z_{CEOHT}}{l_{REF}} \right] + C_{AbEOHT}^* \left[\frac{Z_{CEOHT}}{l_{REF}} \right] \\ - C_{ACSRM}^* \left[\frac{Z_{CSRM}}{l_{REF}} \right] + C_{AbSRM}^* \left[\frac{Z_{CSRM}}{l_{REF}} \right] + C_{ANSRM} \left[\frac{Z_{NSRM}}{l_{REF}} \right]$$

Substituting:

$$C_{MT} = C_{MBAL} + C_{ACORB} \left[\frac{Z_{CORB}}{l_{REF}} \right] + C_{ANORB} \left[\frac{Z_{NORB}}{l_{REF}} \right] + C_{ACEOHT} \left[\frac{Z_{CEOHT}}{l_{REF}} \right] \\ + C_{ACSRM} \left[\frac{Z_{CSRM}}{l_{REF}} \right] + C_{ANSRM} \left[\frac{Z_{NSRM}}{l_{REF}} \right]$$

Forebody chord force coefficient (C_{Af}):

$$C_{Af} = C_{AT} - C_{AbORB} - C_{AbEOHT} - C_{AbSRM} \\ - C_{AbOMS} - C_{AbOMSN} - C_{AbACPS}$$

where:

$$C_{AbORB} = - \frac{\sum_{i=1}^{204} \frac{C_{P1}}{WF1} \left[\frac{A_{bORB}}{S_{REF}} \right]}{\sum_{i=1}^{204} \frac{1}{WF1}}$$

$$C_{AbEOHT} = - \frac{\sum_{i=1}^{302} \frac{C_{P1}}{WF1} \left[\frac{A_{bEOHT}}{S_{REF}} \right]}{\sum_{i=1}^{302} \frac{1}{WF1}}$$

$$C_{AbSRM} = - \frac{\sum_{i=1}^{404} \frac{C_{P1}}{WF1} \left[\frac{A_{bSRM}}{S_{REF}} \right]}{\sum_{i=1}^{404} \frac{1}{WF1}}$$

$$C_{AbOMSN} = -(C_{P305}) \left[\frac{A_{bOMSN}}{S_{REF}} \right]$$

$$C_{AbOMS} = - (C_{P105}) \left[\frac{A_{bOMS}}{S_{REF}} \right]$$

$$C_{AbACPS} = - (C_{P405}) \left[\frac{A_{bACPS}}{S_{REF}} \right]$$

Ascent vehicle forebody pitching moment (C_{M_f}):

$$\begin{aligned} C_{M_f} = C_{M_T} - C_{AbORB} \left[\frac{Z_{bORB}}{l_{REF}} \right] - C_{AbEOHT} \left[\frac{Z_{bEOHT}}{l_{REF}} \right] \\ - C_{AbSRM} \left[\frac{Z_{bSRM}}{l_{REF}} \right] - C_{AbOMS} \left[\frac{Z_{bOMS}}{l_{REF}} \right] \\ - C_{AbOMSN} \left[\frac{Z_{bOMSN}}{l_{REF}} \right] - C_{AbACPS} \left[\frac{Z_{bACPS}}{l_{REF}} \right] \end{aligned}$$

Wing, base, cavity, and upper MPS nozzle pressure coefficient (C_{P_i}):

$$C_{P_i} = \left(\frac{P_i - P_o}{q} \right)$$

Elevon hinge moment (C_{H_e}):

$$C_{He_I} = \frac{m'_{e_I} K_{e_I}}{q S_e C_e} \text{ (Inboard)}$$

$$C_{He_O} = \frac{m'_{e_O} K_{e_O}}{q S_e C_e} \text{ (outboard)}$$

$$C_{He_T} = C_{He_I} + C_{He_O}$$

where:

m' = raw cts

K = calibration factor (in.-lb/cts)

Rudder hinge moment (C_{H_r}):

$$C_{H_r} = \frac{m'_r K_r}{q S_r C_r}$$

Wing bending, torsion, and load CP:

Convert raw data counts to in.-lbs: (basic slopes)

where:

m' = raw data cts

K_{ij} = calibration factor (in.-lb/ct) and i = gage number
 j = order of term of second degree curve fit

$$m_1 = m'_1 K_{11} + (m'_1)^2 K_{12} \quad (\text{inboard gage})$$

$$m_2 = m'_2 K_{21} + (m'_2)^2 K_{22} \quad (\text{outboard gage})$$

$$m_3 = m'_3 K_{31} + (m'_3)^2 K_{32} \quad (\text{torsion gage})$$

Taking interactions into account:

$$M_1 = m_1 - \left[\left(\frac{\delta m_1}{\delta m_2} \right)_1 m_2 + \left(\frac{\delta m_1}{\delta m_2} \right)_2 (m_2)^2 \right] - \left[\left(\frac{\delta m_1}{\delta m_3} \right)_1 m_3 + \left(\frac{\delta m_1}{\delta m_3} \right)_2 (m_3)^2 \right]$$

$$M_2 = m_2 - \left[\left(\frac{\delta m_2}{\delta m_1} \right)_1 m_1 + \left(\frac{\delta m_2}{\delta m_1} \right)_2 (m_1)^2 \right] - \left[\left(\frac{\delta m_2}{\delta m_3} \right)_1 m_3 + \left(\frac{\delta m_2}{\delta m_3} \right)_2 (m_3)^2 \right]$$

$$M_3 = m_3 - \left[\left(\frac{\delta m_3}{\delta m_1} \right)_1 m_1 + \left(\frac{\delta m_3}{\delta m_1} \right)_2 (m_1)^2 \right] - \left[\left(\frac{\delta m_3}{\delta m_2} \right)_1 m_2 + \left(\frac{\delta m_3}{\delta m_2} \right)_2 (m_2)^2 \right]$$

Determine loads and coefficients:

$$N_W = \left(\frac{M_1 - M_2}{x_W} \right)$$

$$C_{N_W} = \frac{N_W}{q S_W}$$

$$C_{B_W} = \frac{(M_2 + Y_W N_W)}{q S_W b_W}$$

Determine loads and coefficients:

$$C_{HW} = \frac{M_3}{q S_W C_W}$$

$$XCP_W = X_{HL} - \frac{C_{HW}}{C_{NW}} \bar{C}_W$$

$$YCP_W = Y_{ROOT} + \frac{C_{BW}}{C_{NW}} b_W$$

Jet Plume Parameters ($RP_{C()}$, $RP_{e()}$):

$$RP_{C()} = 144 \frac{P_{C()}}{P_T}$$

$$RP_{e()} = 144 \frac{P_{e()}}{P_T} \left[\frac{1}{k_{rpe}} \right]$$

The following reference dimensions and constants were used:

	<u>Full Scale</u>	<u>Model Scale</u>
$A_{D_{ACPS}}$	28.42 ft ²	0.01026 ft ²
$A_{D_{ET}}$	572.56 ft ²	0.2067 ft ²
$A_{D_{OMS}}$	16.973 ft ²	0.00613 ft ²
$A_{D_{OMSN}}$	25.631 ft ²	0.00925 ft ²
$A_{D_{ORB}}$	226.75 ft ²	0.08186 ft ²
$A_{D_{SRM}} (S_6)$	512.465 ft ²	0.185 ft ²
$A_{D_{SRM}} (S_{10})$	183.01 ft ²	0.0661 ft ²
$A_{C_{ET}}$	366.5 ft ²	0.132 ft ²
$A_{C_{ORB}}$	302.40 ft ²	0.1092 ft ²
$A_{C_{SRM}}$	181.378 ft ²	0.0654 ft ²
$A_{N_{ORB}}$	141.44 ft ²	0.0511 ft ²
$A_{N_{SRM}}$	219.02 ft ²	0.0791 ft ²
a	-	-2.783 in.
b_w	363.341 in.	6.903 in.
C_e	90.7 in.	1.723 in.
C_r	74.4 in.	1.414 in.

	<u>Full Scale</u>	<u>Model Scale</u>
C_w	513.474 in.	9.756 in.
d	-	-11.283 in.
e	-	0.0 in.
f	-	-3.533 in.
g	-	-10.533 in.
l_{REF}	1328.0 in.	25.232 in.
S_e	210.0 ft ² per wing panel	0.0758 ft ²
S_r	106.38 ft ²	0.0384 ft ²
S_w	1006.5 ft ²	0.363 ft ²
S_{REF}	2690.0 ft ²	0.971 ft ²
x_w	-	0.5638 in.
x_{REL}	1150.79 in.	21.865 in.
y_w	-	0.1423 in.
y_{ROOT}	105.0 in.	1.995 in.
z_{bACPS}	402.987 in.	7.656 in.
z_{bET}	0.0	0.0
z_{bOMS}	415.505 in.	7.895 in.
z_{bOMSH}	437.94 in.	8.321 in.

	<u>Full Scale</u>	<u>Model Scale</u>
$z_{b_{ORB}}$	310.0 in.	5.89 in.
$z_{b_{SRM}}$	0.0	0.0
$z_{c_{ET}}$	0.0	0.0
$z_{c_{ORB}}$	349.66 in.	6.64 in.
$z_{c_{SRM}}$	0.0	0.0
$z_{N_{ORB}}$	335.0 in.	6.36 in.
$z_{N_{SRM}}$	0.0	0.0

Calibration Constants

$K_{r_{pe}}$	(ORB) = 1.060	(SRM) = 1.122
--------------	---------------	---------------

	<u>Positive Gage Output</u>	<u>Negative Gage Output</u>
K_{e_1}	26.20 in. -1b-v/mv	26.39 in. -1b-v/mv
K_{e_o}	27.03 in. -1b-v/mv	27.42 in. -1b-v/mv
K_r	20.80 in. -1b-v/mv	20.885 in. -1b-v/mv
K_{11}	463.1672 in. -1b-v/mv	476.3954 in. -1b-v/mv
K_{12}	0.0	0.0
K_{21}	436.8877 in. -1b-v/mv	437.4474 in. -1b-v/mv
K_{22}	0.0	0.0

	<u>Positive Gage Output</u>	<u>Negative Gage Output</u>
K_{31}	539.9926 in. -lb-v/mv	538.9718 in. -lb-v/mv
K_{32}	0.0	0.0
$(\partial m_1 / \partial m_2)_1$	0.0	0.0
$(\partial m_1 / \partial m_2)_2$	0.0	0.0
$(\partial m_1 / \partial m_3)_1$	-.010562	-.004132
$(\partial m_1 / \partial m_3)_2$	0.0	0.0
$(\partial m_2 / \partial m_1)_1$	0.0	0.0
$(\partial m_2 / \partial m_1)_2$	0.0	0.0
$(\partial m_2 / \partial m_3)_1$.014458	.018206
$(\partial m_2 / \partial m_3)_2$	0.0	0.0
$(\partial m_3 / \partial m_1)_1$.022277	.029935
$(\partial m_3 / \partial m_1)_2$	0.0	0.0
$(\partial m_3 / \partial m_2)_1$	-.031554	-.03498
$(\partial m_3 / \partial m_2)_2$	0.0	0.0

TEST : IA12C (ARC 87-710)

DATE : July, 1973

TEST CONDITIONS

[illegible]

BALANCE UTILIZED: 2.5-inch Task MK III

		CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
fwd	NF	<u>1400 lbs</u>	<u>± .5%</u>	<u> </u>
fwd	SF	<u>700 lbs</u>	<u>± .5%</u>	<u> </u>
	AF	<u>280 lbs</u>	<u>± .5%</u>	<u> </u>
aft	NF	<u>1400 lbs</u>	<u>± .5%</u>	<u> </u>
aft	SF	<u>700 lbs</u>	<u>± .5%</u>	<u> </u>
	RM	<u>2000 in-lbs</u>	<u>± .5%</u>	<u> </u>

COMMENTS: Model was also instrumented with: elevon and rudder hinge moment gages, wing 3-component balance, nozzle and wing pressure orifices, and base pressures.

TABLE II. - COLLATION INFORMATION

a. TEST ARC 87-110 DATA SET/RUN NUMBER

COLLATION SUMMARY

For use only

☐ PRETEST
☒ POSTTEST

TEST RUN NUMBERS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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		A	B	1	2		WEEK	POWER	APR	WPR	GOI	GYI	GYE	GYO	Z																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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COEFFICIENTS: 2A: -8, -6, -4, -2, 0, 2, 4, 6, 8
3B: -7, -6, -4, -2, 0, 2, 4, 6, 7

a or b SCHEDULES

7 13 19 25 31 37 43 49 55 61 67 75.76

→ IDPVAR(1) IDPVAR(2) NDV

ORIGINAL PAGE IS
OF POOR QUALITY

TABLE II. - Continued

a. TEST AKC 87-710 DATA SET/RUN NUMBER (Continued)

COLLATION SUMMARY

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER		CONFIGURATION	SCHD.		MACH NUMBERS		NO. of RUNS	PARAMETERS/VALUES							TEST RUN NUMBERS
			A	B	2.5	3.0		MERA	FWER	APR	SINPR	GPI	GY1	GY2	
223	223	Q2 T.L.S.	A	O	23		150	ON	31.26	1.71	411°	-9°	-9°	0°	
24	24		O	B	24		150	ON	31.26	1.71					
25	25		O	B	25		150	OFF							
26	26		A	O	26		150	OFF							
27	27		A	O	27		150	ON	31.26	1.71					
28	28		O	B	28		150	ON	31.26	1.71					
29	29		O	B	29		150	OFF							
30	30		A	O	30		150	OFF							
31	31	Q1 T.L.S.	A	O	31		150	OFF			0°	0°	35°	35°	
32	32	WITH UPPER NIPS	O	B	32		150	OFF							
33	33	NOZZLE INSTRUMENTED	O	B	33		150	ON	31.26	1.71					
34	34		A	O	34		150	ON	31.26	1.71					
35	35		A	O	35		150	ON	31.26	1.71					
36	36		O	B	36		150	ON	14.72	1.71					
37	37		A	O	37		150	ON	14.72	1.71					
38	38		A	O	38		150	OFF							
39	39		O	B	39		150	OFF							
40	40		O	B	40		150	ON	14.72	1.71					
41	41		A	O	41		150	ON	14.72	1.71					
42	42		A	O	42		150	ON	14.72	1.71					

COEFFICIENTS:

3 10 5

SCHEDULES

TABLE II. - Continued

a. TEST ARC 87-710 DATA SET/RUN NUMBER (Continued)

COLLATION SUMMARY

☐ PRETEST
☒ POSTTEST

TEST RUN NUMBERS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		MACH NUMBERS			NO. of RUNS	PARAMETERS/VALUES						TEST RUN NUMBERS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		A	B	2.5	3.0	3.5		WATER PRESSURE	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP

1 7 13 19 25 31 37 43 49 55 61 67 75.76

COEFFICIENTS: 8 A1-6, -6, -4, -2, 0, 2, 4, 6, 8

OF B 3 B1-7, -6, -5, -2, 0, 2, 4, 6, 7

SCHEDULES 8 A1-6, -6, -4, -2, 0, 2, 4, 6, 8

↑ IDPVAR(1) IDPVAR(2) NDV

ORIGINAL PAGE IS
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TABLE II. - Continued

a. TEST AK 227-110 DATA SET/RUN NUMBER (Continued)

COLLATION SUMMARY

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		MACH NUMBERS			NO. of RUNS	PARAMETERS/VALUES					TEST RUN NUMBERS									
		a	b	25	30	35		1A	2A	3A	4A	5A	6	7	8	9	10	11	12	13	14	15
RSE 064	$\phi_1 T_1 S_1$	0	B					OFF	—	—	—	—	710°	35°	43.5	0°						
65		0	B					ON	23.26	—	—	—										
66		A	O					ON	23.26	—	—	—										
67	$\phi_3 T_1 S_1$	A	O	37				ON	23.26	—	—	—										
68		A	O	68				ON	23.26	—	—	—										
69		A	O		69			ON	23.26	—	—	—										
70		A	O			70		ON	23.26	—	—	—										
71		A	O			71		ON	23.26	—	—	—										
72	$\phi_1 T_1 S_4$	A	O	72				OFF	—	—	—	—	0°									
73		A	O	73				ON	23.26	—	—	—										
74		A	O		74			ON	23.26	—	—	—										
75		A	O		75			OFF	—	—	—	—										
76		A	O			76		ON	23.26	—	—	—										
77		A	O			77		OFF	—	—	—	—										
78	$\phi_3 T_1 S_1$	A	O	78				ON	23.26	—	—	—										
79		A	O		79			ON	23.26	—	—	—										
80		A	O			80		ON	23.26	—	—	—										
81		A	O			81		ON	23.26	—	—	—										
82	$\phi_4 T_1 S_1$	A	O	82				ON	23.26	—	—	—										
83	$\phi_4 T_1 S_1$	A	O		83			ON	23.26	—	—	—										

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS: 2A = 6-4 = 0.84 4A = 6-7

a or b 2A = 6-4 = 0.84 4A = 6-7

SCHEDULES

TABLE II. - Continued

a. TEST ARC 87-710 DATA SET/RUN NUMBER (Continued)

COLLATION SUMMARY

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		MACH NUMBERS			NO. of RUNS	PARAMETERS/VALUES								TEST RUN NUMBERS									
		1	2	3	4	5		POWER	OPR	EMPR	GP1	GP2	GP3	GP4	GP5										
REZ024	DATA	A	0					ON	21.1	21.1	0°	0°	0°	0°	0°										
25	DATA	A	0					OFF	-	-	0°	0°	0°	0°	0°										
26		B	0					OFF	-	-	0°	0°	0°	0°	0°										
27		B	0					ON	21.1	21.1	0°	0°	0°	0°	0°										
28		A	0					ON	21.1	21.1	0°	0°	0°	0°	0°										
29		A	0					OFF	-	-	0°	0°	0°	0°	0°										
30		B	0					OFF	-	-	0°	0°	0°	0°	0°										
31		B	0					ON	21.1	21.1	0°	0°	0°	0°	0°										
32		A	0					ON	21.1	21.1	0°	0°	0°	0°	0°										
33		A	0					OFF	-	-	0°	0°	0°	0°	0°										
34		B	0					OFF	-	-	0°	0°	0°	0°	0°										
35		B	0					ON	21.1	21.1	0°	0°	0°	0°	0°										
36		A	0					ON	21.1	21.1	0°	0°	0°	0°	0°										
37		A	0					OFF	-	-	0°	0°	0°	0°	0°										
38		B	0					OFF	-	-	0°	0°	0°	0°	0°										
39		A	0					ON	21.1	21.1	0°	0°	0°	0°	0°										
40		B	0					ON	21.1	21.1	0°	0°	0°	0°	0°										
41		B	0					OFF	-	-	0°	0°	0°	0°	0°										
42		A	0					ON	21.1	21.1	0°	0°	0°	0°	0°										
43		B	0					ON	21.1	21.1	0°	0°	0°	0°	0°										
44		A	0					OFF	-	-	0°	0°	0°	0°	0°										
45		B	0					ON	21.1	21.1	0°	0°	0°	0°	0°										
46		A	0					ON	21.1	21.1	0°	0°	0°	0°	0°										
47		A	0					OFF	-	-	0°	0°	0°	0°	0°										
48		B	0					OFF	-	-	0°	0°	0°	0°	0°										
49		A	0					ON	21.1	21.1	0°	0°	0°	0°	0°										
50		B	0					ON	21.1	21.1	0°	0°	0°	0°	0°										
51		B	0					OFF	-	-	0°	0°	0°	0°	0°										
52		A	0					OFF	-	-	0°	0°	0°	0°	0°										
53		A	0					ON	21.1	21.1	0°	0°	0°	0°	0°										

7 13 13 25 31 37 43 49 55 61 67 75.76

COEFFICIENTS:
a or b
SCHEDULES

IDPVAR(1) IDPVAR(2) NDV

ORIGINAL PAGE 1
OF POOR QUALITY

TABLE II. - Continued

a. TEST ARC 87-710 DATA SET/RUN NUMBER (Continued)
COLLATION SUMMARY

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.	MACH NUMBERS		NO. of RUNS	PARAMETERS/VALUES										TEST RUN NUMBERS									
			A	B		1	2	3	4	5	6	7	8	9	10										
R82 104	ϕ, T, S_1	O B	2.5	3.0	3.5	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
105		O B																							
106		A O																							
107		A O																							
108		O B																							
109	ϕ, T, S_2	A O																							
110		O B																							
111		O B																							
112		A O																							
113		O B																							
114	ϕ, T, S_2	A O																							
115		O B																							
116		O B																							
117		A O																							
118		A O																							
119		O B																							
120		O B																							
121		A O																							
122	ϕ, T_1	A O																							
123		O B																							

1 7 13 19 25 31 37 43 49 55 61 67 73 76

COEFFICIENTS: 2.1-6-4-2-0-2-4-6 3.1-7-5-2-1-5-2 1DPVAR(1) 1DPVAR(2) NDV

a or b
SCHEDULES

TABLE II. - Concluded

a. TEST AFC 7-7.2 DATA SET/RUN NUMBER (Concluded)

COLLATION SUMMARY

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHED.		MACH NUMBERS				NO. OF RUNS	PARAMETERS/VALUES					TEST RUN NUMBERS											
		A	B	2.5	3.0	3.5			CONC.	PER	TEMP.	SV	SV	L											
202 124	ϕ_{1T}	0	B			124			ON	23.86	-	-3.5	130	0											
125	ϕ_{2T}	A	0			125			ON	23.86	-														
126	ϕ_{3T}	A	0			126			ON	23.86	-														
127	ϕ_{4T}	A	0			127			ON	23.86	-														
128	$\phi_{1T, 3T}$ - MACH 3.5	A	0			128			OFF	-	-														
129	GREATER AND JEM	0	3			129			OFF	-	-														
130	FLUID FLOW	0	3			130			ON	-	-														
131	$\phi_{1T, 3T}$ - MACH 3.5	A	0			131			ON	-	-														
132	$\phi_{1T, 3T}$ - MACH 3.5	0	0			132			ON	23.86	23.86														
133	$\phi_{1T, 3T}$ - MACH 3.5	0	0			133			ON	23.86	23.86														

1 7 13 19 25 31 37 43 49 55 61 67 75.76
IDPVAR(1) IDPVAR(2) IDV

COEFFICIENTS:

a OF b

SCHEDULES

~~2.5 - 8, -4, 0, 4~~
~~3.0 - 7, -8, 0, 4~~

Table 11 (Cont'd)

E. 0.019 Scale Jet F1 - Model Orbiter Pressure Nozzle Table

$M_0 = 2.5$

(Bottom Left)

X	DIS. A : FORWARD OF NOZZLE EXIT											
	1.4"				1.2"				1.3"			
	.232				.466				.753			
VARIABLE	TAP NO.	RUN NO.		TAP NO.	TAP NO.	RUN NO.		TAP NO.	TAP NO.	RUN NO.		TAP NO.
		POWER ON	POWER OFF			POWER ON	POWER OFF			POWER ON	POWER OFF	
0	0	27	20	30	23	12	12	90	20	15	17	120
10	30	28	29	31	24	13	13	100	21	16	18	130
20	60	29	30	32	25	14	14	110	22	17	19	140
30	90	30	31	33	26	15	15	120	23	18	20	150
40	120	31	32	34	27	16	16	130	24	19	21	160
50	150	32	33	35	28	17	17	140	25	20	22	170
60	180	33	34	36	29	18	18	150	26	21	23	180
70	210	34	35	37	30	19	19	160	27	22	24	190
80	240	35	36	38	31	20	20	170	28	23	25	200
90	270	36	37	39	32	21	21	180	29	24	26	210
100	300	37	38	40	33	22	22	190	30	25	27	220
110	330	38	39	41	34	23	23	200	31	26	28	230
120	360	39	40	42	35	24	24	210	32	27	29	240
130	390	40	41	43	36	25	25	220	33	28	30	250
140	420	41	42	44	37	26	26	230	34	29	31	260
150	450	42	43	45	38	27	27	240	35	30	32	270
160	480	43	44	46	39	28	28	250	36	31	33	280
170	510	44	45	47	40	29	29	260	37	32	34	290
180	540	45	46	48	41	30	30	270	38	33	35	300
190	570	46	47	49	42	31	31	280	39	34	36	310
200	600	47	48	50	43	32	32	290	40	35	37	320
210	630	48	49	51	44	33	33	300	41	36	38	330
220	660	49	50	52	45	34	34	310	42	37	39	340
230	690	50	51	53	46	35	35	320	43	38	40	350
240	720	51	52	54	47	36	36	330	44	39	41	360
250	750	52	53	55	48	37	37	340	45	40	42	370
260	780	53	54	56	49	38	38	350	46	41	43	380
270	810	54	55	57	50	39	39	360	47	42	44	390
280	840	55	56	58	51	40	40	370	48	43	45	400
290	870	56	57	59	52	41	41	380	49	44	46	410
300	900	57	58	60	53	42	42	390	50	45	47	420
310	930	58	59	61	54	43	43	400	51	46	48	430
320	960	59	60	62	55	44	44	410	52	47	49	440
330	990	60	61	63	56	45	45	420	53	48	50	450

*TAP 016 WAS BAD THROUGHOUT THE TEST.

Table 11 (Cont'd)
 0.019 SCALE JET PLUME MODEL ORBITER PRE-SUPE NOZZLE TABLE
 (BOTTOM RIGHT)

M = 2.5

X IN	DISTANCE FORWARD OF NOZZLE EXIT											
	1.2"				1.4"				1.6"			
	.580				.753				.928			
VARIABLE	TAP NO.	POWER ON	POWER OFF	RUN NO.	TAP NO.	POWER ON	POWER OFF	RUN NO.	TAP NO.	POWER ON	POWER OFF	RUN NO.
0	2	25	30	36	8	10	9	13	120	33	20	25
30	1	10	7	11	11	12	14	18	19	26	23	30
60	1	10	7	11	12	13	16	20	21	25	24	29
90	1	10	7	11	13	15	18	23	26	30	27	30
120	1	10	7	11	14	16	17	24	25	30	28	29
150	1	10	7	11	15	17	18	25	26	30	29	28
180	1	10	7	11	16	18	19	26	27	30	30	27
210	1	10	7	11	17	19	20	27	28	29	31	26
240	1	10	7	11	18	20	21	28	29	30	32	25
270	1	10	7	11	19	21	22	29	30	31	33	24
300	1	10	7	11	20	22	23	30	31	32	34	23
330	1	10	7	11	21	23	24	31	32	33	35	22
360	1	10	7	11	22	24	25	32	33	34	36	21

5-2-5

DISTANCE FORWARD OF NOZZLE UNIT									
1.6"		1.3"		1.2"		1.1"		1.0"	
.928		.753		.550		.347		.144	
RUE NO.		RUE NO.		RUE NO.		RUE NO.		RUE NO.	
POWER ON	POWER OFF	POWER ON	POWER OFF	POWER ON	POWER OFF	POWER ON	POWER OFF	POWER ON	POWER OFF
TAP NO.	θ ₁	TAP NO.	θ ₁	TAP NO.	θ ₁	TAP NO.	θ ₁	TAP NO.	θ ₁
1	150 5	19	22	15	15	90 10	11	10	9
2	24	20	21	16	17	120 10	12	11	10
3	27 30	23	26	19	22	150 10	13	12	9
4	28 29	24	25	20	21	180 10	14	13	10
5	5	27	30	23	26	210 10	15	14	11
6	10	28	29	24	25	240 10	16	15	12
7	11	6	7	27	30	270 10	17	16	13
8	12	10	9	28	29	300 10	18	17	14
9	13	11	13	29	27	330 10	19	18	15
10	14	12	14	30	28	360 10	20	19	16
11	15	13	15	1	11	390 10	21	20	17
12	16	14	16	2	12	420 10	22	21	18
13	17	15	17	3	13	450 10	23	22	19
14	18	16	18	4	14	480 10	24	23	20
15	19	17	19	5	15	510 10	25	24	21
16	20	18	20	6	16	540 10	26	25	22
17	21	19	21	7	17	570 10	27	26	23
18	22	20	22	8	18	600 10	28	27	24
19	23	21	23	9	19	630 10	29	28	25
20	24	22	24	10	20	660 10	30	29	26
21	25	23	25	11	21	690 10	31	30	27
22	26	24	26	12	22	720 10	32	31	28
23	27	25	27	13	23	750 10	33	32	29
24	28	26	28	14	24	780 10	34	33	30
25	29	27	29	15	25	810 10	35	34	31
26	30	28	30	16	26	840 10	36	35	32
27	31	29	31	17	27	870 10	37	36	33
28	32	30	32	18	28	900 10	38	37	34
29	33	31	33	19	29	930 10	39	38	35
30	34	32	34	20	30	960 10	40	39	36
31	35	33	35	21	31	990 10	41	40	37
32	36	34	36	22	32	1020 10	42	41	38
33	37	35	37	23	33	1050 10	43	42	39
34	38	36	38	24	34	1080 10	44	43	40
35	39	37	39	25	35	1110 10	45	44	41
36	40	38	40	26	36	1140 10	46	45	42
37	41	39	41	27	37	1170 10	47	46	43
38	42	40	42	28	38	1200 10	48	47	44
39	43	41	43	29	39	1230 10	49	48	45
40	44	42	44	30	40	1260 10	50	49	46
41	45	43	45	31	41	1290 10	51	50	47
42	46	44	46	32	42	1320 10	52	51	48
43	47	45	47	33	43	1350 10	53	52	49
44	48	46	48	34	44	1380 10	54	53	50
45	49	47	49	35	45	1410 10	55	54	51
46	50	48	50	36	46	1440 10	56	55	52
47	51	49	51	37	47	1470 10	57	56	53
48	52	50	52	38	48	1500 10	58	57	54
49	53	51	53	39	49	1530 10	59	58	55
50	54	52	54	40	50	1560 10	60	59	56
51	55	53	55	41	51	1590 10	61	60	57
52	56	54	56	42	52	1620 10	62	61	58
53	57	55	57	43	53	1650 10	63	62	59
54	58	56	58	44	54	1680 10	64	63	60
55	59	57	59	45	55	1710 10	65	64	61
56	60	58	60	46	56	1740 10	66	65	62
57	61	59	61	47	57	1770 10	67	66	63
58	62	60	62	48	58	1800 10	68	67	64
59	63	61	63	49	59	1830 10	69	68	65
60	64	62	64	50	60	1860 10	70	69	66
61	65	63	65	51	61	1890 10	71	70	67
62	66	64	66	52	62	1920 10	72	71	68
63	67	65	67	53	63	1950 10	73	72	69
64	68	66	68	54	64	1980 10	74	73	70
65	69	67	69	55	65	2010 10	75	74	71
66	70	68	70	56	66	2040 10	76	75	72
67	71	69	71	57	67	2070 10	77	76	73
68	72	70	72	58	68	2100 10	78	77	74
69	73	71	73	59	69	2130 10	79	78	75
70	74	72	74	60	70	2160 10	80	79	76
71	75	73	75	61	71	2190 10	81	80	77
72	76	74	76	62	72	2220 10	82	81	78
73	77	75	77	63	73	2250 10	83	82	79
74	78	76	78	64	74	2280 10	84	83	80
75	79	77	79	65	75	2310 10	85	84	81
76	80	78	80	66	76	2340 10	86	85	82
77	81	79	81	67	77	2370 10	87	86	83
78	82	80	82	68	78	2400 10	88	87	84
79	83	81	83	69	79	2430 10	89	88	85
80	84	82	84	70	80	2460 10	90	89	86
81	85	83	85	71	81	2490 10	91	90	87
82	86	84	86	72	82	2520 10	92	91	88
83	87	85	87	73	83	2550 10	93	92	89
84	88	86	88	74	84	2580 10	94	93	90
85	89	87	89	75	85	2610 10	95	94	91
86	90	88	90	76	86	2640 10	96	95	92
87	91	89	91	77	87	2670 10	97	96	93
88	92	90	92	78	88	2700 10	98	97	94
89	93	91	93	79	89	2730 10	99	98	95
90	94	92	94	80	90	2760 10	100	99	96
91	95	93	95	81	91	2790 10	101	100	97
92	96	94	96	82	92	2820 10	102	101	98
93	97	95	97	83	93	2850 10	103	102	99
94	98	96	98	84	94	2880 10	104	103	100
95	99	97	99	85	95	2910 10	105	104	101
96	100	98	100	86	96	2940 10	106	105	102
97	101	99	101	87	97	2970 10	107	106	103
98	102	100	102	88	98	3000 10	108	107	104
99	103	101	103	89	99	3030 10	109	108	105
100	104	102	104	90	100	3060 10	110	109	106
101	105	103	105	91	101	3090 10	111	110	107
102	106	104	106	92	102	3120 10	112	111	108
103	107	105	107	93	103	3150 10	113	112	109
104	108	106	108	94	104	3180 10	114	113	110
105	109	107	109	95	105	3210 10	115	114	111
106	110	108	110	96	106	3240 10	116	115	112
107	111	109	111	97	107	3270 10	117	116	113
108	112	110	112	98	108	3300 10	118	117	114
109	113	111	113	99	109	3330 10	119	118	115
110	114	112	114	100	110	3360 10	120	119	116
111	115	113	115	101	111	3390 10	121	120	117
112	116	114	116	102	112	3420 10	122	121	118
113	117	115	117	103	113	3450 10	123	122	119
114	118	116	118	104	114	3480 10	124	123	120
115	119	117	119	105	115	3510 10	125	124	121
116	120	118	120	106	116	3540 10	126	125	122
117	121	119	121	107	117	3570 10	127	126	123
118	122	120	122	108	118	3600 10	128	127	124
119	123	121	123	109	119	3630 10	129	128	125
120	124	122	124	110	120	3660 10	130	129	126
121	125	123	125	111	121	3690 10	131	130	127
122	126	124	126	112	122	3720 10	132	131	128
123	127	125	127	113	123	3750 10	133	132	129
124	128	126	128	114	124	3780 10	134	133	130
125	129	127	129	115	125	3810 10	135	134	131
126	130	128	130	116	126	3840 10	136	135	132
127	131	129	131	117	127	3870 10	137	136	133
128	132	130	132	118	128	3900 10	138	137	134
129	133	131	133	119	129	3930 10	139	138	135
130	134	132	134	120	130	3960 10	140	139	136
131	135	133	135	121	131	3990 10	141	140	137
132	136	134	136	122	132	4020 10	142	141	138
133	137	135	137	123	133	4050 10	143	142	139
134	138	136	138	124	134	4080 10	144	143	140
135	139	137	139	125	135	4110 10	145	144	141
136	140	138	140	126	136	4140 10	146	145	142
137	141	139	141	127	137	4170 10	147	146	143
138	142	140	142	128	138	4200 10	148	147	144
139	143	141	143	129	139	4230 10	149	148	145
140	144	142	144	130	140	4260 10	150	149	146
141	145	143	145	131	141	4290 10	151	150	147
142	146	144	146	132	142	4320 10	152	151	148
143	147	145	147	133	143	4350 10	153	152	149
144	148	146	148	134	144	4380 10	154	153	150
145	149	147	149	135	145	4410 10	155	154	151
146	150	148	150	136	146	4440 10	156	155	152
147	151	149	151	137	147	4470 10	157		

Nozzle Pressure Data

TEST: ARC 87-710 (1A12C)

[illegible]

CA	ICVAR (1)	IDVAR (2)	NDV
CA			

COEFFICIENTS

8
C
B

$\alpha A: -8, -6, -4, -2, 0, 2, 4, 6, 8$
 $\beta B: -7, -6, -4, -2, 0, 2, 4, 6, 7$

	DATA SETS	CONTAIN	UPPER	MPS NOZZLE DATA
• R02A --	DATA SETS	CONTAIN	LOWER	LEFTHAND MPS NOZZLE DATA
R02B --	DATA SETS	CONTAIN	LOWER	RIGHTHAND MPS NOZZLE DATA
R02C --	DATA SETS	CONTAIN	LOWER	RIGHTHAND MPS NOZZLE DATA

TABLE III. - MODEL COMPONENT DIMENSIONAL DATA

MODEL COMPONENT: B10 - BodyGENERAL DESCRIPTION: Fuselage, 2A Configuration, Lightweight Orbiter per
Rockwell Lines VL70-000089 "B".Scale Model = 0.019DRAWING NUMBER:

VL70-000089 "B"

"L70-000092, 93, 94 "A"

SS-A-00092DIMENSIONS:FULL-SCALEMODEL SCALE

Length ~ in.

1328.325.238Max. Width ~ in. ($\theta X_0 = 1528.3$)265.05.035Max. Depth ~ in. ($\theta X_0 = 1480.52$)248.04.712

Fineness Ratio

5.0125.012Area ~ Ft.²

Max. Cross-Sectional

456.40.1648

Planform

--

Wetted

--

Base

--

TABLE III. - Continued.

MODEL COMPONENT: C5 Orbiter Canopy

GENERAL DESCRIPTION: Orbiter Canopy for Light Weight Orbiter Configuration

Model Scale = 0.019

DRAWING NUMBER: VL-70-000092

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
STA. FWD. Bulkhead, in	<u>391.0</u>	<u>7.429</u>
STA. T.E., in	<u>560.0</u>	<u>10.640</u>
Canopy/Body Intersection, IN	<u>391.0</u>	<u>7.429</u>

TABLE III. - Continued.

MODEL COMPONENT: D7 - Manipulator HousingGENERAL DESCRIPTION: 2A Configuration Per Rockwell Lines VL70-000093Scale Model = 0.019DRAWING NUMBER: VL70-000093; SS-A-00092

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length ~ in.	<u>891.0</u>	<u>16.739</u>
Max. Width ~ in.	<u>51.0</u>	<u>0.969</u>
Max. Depth ~ in.	<u>23.0</u>	<u>0.437</u>
Fineness Ratio	<u>-</u>	<u>-</u>
Area		
Max. Cross-Sectional	<u>-</u>	<u>-</u>
Planform	<u>-</u>	<u>-</u>
Wetted	<u>-</u>	<u>-</u>
Base	<u>-</u>	<u>-</u>

Location at:

‡ Fuselage BP = 0.0
 WP = 500.0 INFS
 X₀426.0 to X₀1307.0 INFS

TABLE III. - Continued.

MODEL COMPONENT: F4 Body Flap

GENERAL DESCRIPTION: Left Body Flap Used on Light Weight Orbiter Configuration

Model Scale = 0.019

DRAWING NUMBER: VL-70-000094 "A", SS-A-00092

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length, in	<u>84.70</u>	<u>1.609</u>
Max. Width, in	<u>265.00</u>	<u>5.035</u>
Max. Depth	<u>-</u>	<u>-</u>
Fineness Ratio	<u>-</u>	<u>-</u>
Area, ft ²		
Max. Cross-Sectional	<u>-</u>	<u>-</u>
Planform	<u>142.64</u>	<u>0.05149</u>
Wetted	<u>-</u>	<u>-</u>
Base	<u>38.65</u>	<u>0.01395</u>

TABLE III. - Continued.

MODEL COMPONENT: M₃ - OMS PODGENERAL DESCRIPTION: 2A Lightweight Orbiter Configuration per Rockwell Lines
VL70-000094 "A"Scale Model = 0.019DRAWING NUMBER: VL70-000094 "A"; SS-A-00092

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length ~ in.	<u>346.0</u>	<u>6.574</u>
Max. Width ~ in. @ X ₀ 1450.0	<u>108.0</u>	<u>2.052</u>
Max. Depth ~ in. @ X ₀ 1500.0	<u>113.8</u>	<u>2.162</u>
Fineness Ratio	<u>-</u>	<u>-</u>
Area		
Max. Cross-Sectional	<u>-</u>	<u>-</u>
Planform	<u>-</u>	<u>-</u>
Wetted	<u>-</u>	<u>-</u>
Base	<u>-</u>	<u>-</u>

¢ of OMS POD

Z₀ = 463.9 INFS: WP400 + 63.9 = 463.9 INFSY₀ = 80.0 INFSLength: X₀ 1214.0 to X₀ 1560.0 = 346.0 INFS

TABLE III. - Continued.

MODEL COMPONENT: NOZZLES - NgGENERAL DESCRIPTION: Basic OMS nozzle of configuration 2A per Rockwell LinesVL70-008306 and VL70-000089"B". Intersection of nozzle exit plane andnozzle centerline at $X_0 = 1570.75$, $Y_0 = +99.25$, $Z_0 = 507.25$ MODEL SCALE = .019DRAWING NO. VL70-008306, VL70-000089"B", SS-A00092

<u>DIMENSIONS</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Mach No. _____		
Length ~ in.		
Gimbal Point to Exit Plane	_____	_____
Throat to Exit Plane	_____	_____
Diameter ~ in.		
Exit	<u>50.00</u>	<u>0.950</u>
Throat	<u>N/A</u>	<u>N/A</u>
Inlet	<u>28.00</u>	<u>0.532</u>
Area ~ ft ² /Nozzle		
Exit	<u>13.635</u>	<u>0.00493</u>
Throat	_____	_____
Gimbal Point (station) ~ in.		
X	<u>1518.0</u>	<u>28.842</u>
Y	<u>+88.0</u>	<u>1.672</u>
Z	<u>492.0</u>	<u>9.348</u>
Null Position ~ deg.		
Pitch	<u>15°49'</u>	<u>15°49'</u>
Yaw (Outb'd)	<u>+12°17'</u>	<u>+12°17'</u>

TABLE III. - Continued

MODEL COMPONENT: MPS NOZZLES - N9GENERAL DESCRIPTION: Orbiter nozzles used for cold plume simulation at M = 0.9,1.25, 1.55, 2.0, 3.0 and 3.5. All (3) nozzles are mounted to ball sockets
with gimbal angles of $\pm 11^\circ$ pitch and $\pm 9^\circ$ yaw from null.MODEL SCALE = .019DRAWING NO. SS-A00092; SS-A00095

<u>DIMENSIONS</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Mach No. <u>0.9 thru 3.5</u>		
Length ~ in.		
Gimbal Point to Exit Plane		
Throat to Exit Plane		
Diameter ~ in.		
Exit	<u>90.730</u>	<u>1.7238</u>
Throat	<u>28.126</u>	<u>0.5344</u>
Inlet	<u>37.336</u>	<u>0.7094</u>
Area ~ ft ² / Nozzle		
Exit	<u>44.896</u>	<u>0.0162</u>
Throat		
Gimbal Point (station) ~ in.		
Upper Nozzle		
X	<u>1445.0</u>	<u>27.455</u>
Y	<u>0.0</u>	<u>0.0</u>
Z	<u>443.0</u>	<u>8.417</u>
Lower Nozzles		
X	<u>146.9</u>	<u>27.890</u>
Y	<u>153.0</u>	<u>1.007</u>
Z	<u>342.6</u>	<u>6.510</u>
Null Position ~ deg.		
Upper Nozzle		
Pitch	<u>16°</u>	<u>16°</u>
Yaw	<u>0°</u>	<u>0°</u>
Lower Nozzles		
Pitch	<u>10°</u>	<u>10°</u>
Yaw (outb'd)	<u>3.5°</u>	<u>3.5°</u>

TABLE III. - Continued..

MODEL COMPONENT: MPS NOZZLES - N10GENERAL DESCRIPTION: Same as N9 except each nozzle has (12) external static
pressure taps on their surfacesMODEL SCALE = .019DRAWING NO. SS-A00092, SS-A00095

<u>DIMENSIONS</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Mach No. _____		
Length ~ in.		
Gimbal Point to Exit Plane	_____	_____
Throat to Exit Plane	_____	_____
Diameter ~ in.		
Exit	_____	_____
Throat	_____	_____
Inlet	_____	_____
Area ~ ft ² .		
Exit	_____	_____
Throat	_____	_____
Gimbal Point (station) ~ in.		
Upper Nozzle		
X	_____	_____
Y	_____	_____
Z	_____	_____
Lower Nozzles		
X	_____	_____
Y	_____	_____
Z	_____	_____
Null Position ~ deg.		
Upper Nozzle		
Pitch	_____	_____
Yaw	_____	_____
Lower Nozzles		
Pitch	_____	_____
Yaw	_____	_____

TABLE III. - Continued.

MODEL COMPONENT: NOZZLES - N17GENERAL DESCRIPTION: BSRM Nozzle ($\theta_N = 11^\circ$) used for cold jet plume simulation
at M = .9 and 1.2 ($\gamma = 7.0$)MODEL SCALE = 0.019DRAWING NO. SS-A00110

<u>DIMENSIONS</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Mach No. <u>.9, 1.2</u>		
Length ~ in.		
Gimbal Point to Exit Plane		
Throat to Exit Plane		
Diameter ~ in./Nozzle		
Exit	<u>141.684</u>	<u>2.692</u>
Throat	<u>53.611</u>	<u>1.019</u>
Inlet	<u>69.316</u>	<u>1.317</u>
Area ~ ft ² ./Nozzle		
Exit	<u>109.489</u>	<u>0.0395</u>
Throat		
Gimbal Point (station) ~ in.		
X	<u>2338.790</u>	<u>44.439</u>
Y	<u>+243.000</u>	<u>+4.617</u>
Z	<u>400.000</u>	<u>7.600</u>
Null Position ~ deg.		
Pitch	<u>0°</u>	<u>0°</u>
Yaw	<u>0°</u>	<u>0°</u>

TABLE III. - Continued.

MODEL COMPONENT: NOZZLES - N 18GENERAL DESCRIPTION: BSRM Nozzle ($\theta_N = 24.4^\circ$) used for cold jet plume simulationat M = 3.0 and M = 3.5MODEL SCALE = .019DRAWING NO. SS-A00110DIMENSIONSFULL SCALEMODEL SCALEMach No. 2.5, 3.0, 3.5

Length ~ in.

Gimbal Point to Exit Plane

Throat to Exit Plane

Diameter ~ in.

Exit

Throat

Inlet

Area ~ ft² / Nozzle

Exit

Throat

Gimbal Point (station) ~ in.

X

Y

Z

Null Position ~ deg.

Pitch

Yaw

141.68453.61169.316109.4892338.790+243.000400.0000°0°2.6921.01861.3170.039544.437+4.6177.6000°0°

TABLE III. - Continued.

MODEL COMPONENT: NOZZLES - N29

GENERAL DESCRIPTION: BSRM Nozzles mismatched on left and right side, i.e., left
nozzle contour and location same as N18 and right nozzle contour and locations
same as N17 ($\epsilon = 7.0$)

MODEL SCALE = .019DRAWING NO. SS-A00110DIMENSIONSFULL SCALEMODEL SCALE

Mach No. _____

Length ~ in.

Gimbal Point to Exit Plane

Throat to Exit Plane

Diameter ~ in.

Exit

Throat

Inlet

Area ~ ft².

Exit

Throat

Gimbal Point (station) ~ in.

X

Y

Z

Null Position ~ deg.

Pitch

Yaw

TABLE III. - Continued.

MODEL COMPONENT: NOZZLES - N30GENERAL DESCRIPTION: BSRM Nozzle same as N18 except moved forward 71" full scale.Gimbal point also moved forward 71". Used for Mach No. 's 2.5, 3.0, and 3.5($\epsilon = 7.0$)MODEL SCALE = .019DRAWING NO. SS-A00110

<u>DIMENSIONS</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Mach No. _____		
Length ~ in.		
Gimbal Point to Exit Plane	_____	_____
Throat to Exit Plane	_____	_____
Diameter ~ in.		
Exit	_____	_____
Throat	_____	_____
Inlet	_____	_____
Area ~ ft ² .		
Exit	_____	_____
Throat	_____	_____
Gimbal Point (station) ~ in.		
X	_____	_____
Y	_____	_____
Z	_____	_____
Null Position ~ deg.		
Pitch	_____	_____
Yaw	_____	_____

TABLE III. - Continued.

MODEL COMPONENT: VERTICAL - V5 (Light Wt. Orbiter Configuration)GENERAL DESCRIPTION: Centerline Vertical Tail, Double Wedge Airfoil with
Rounded Leading EdgeModel Scale = 0.019DRAWING NUMBER:VL-70-000095; SS-A-00092DIMENSIONS:FULL-SCALEMODEL SCALETOTAL DATA

Area (Theo) Ft^2	<u>413.25</u>	<u>0.1492</u>
Planform	<u>-</u>	<u>-</u>
Span (Theo) In	<u>315.72</u>	<u>5.999</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.404</u>	<u>0.404</u>
Sweep Back Angles, degrees		
Leading Edge	<u>45.000</u>	<u>45.000</u>
Trailing Edge	<u>26.249</u>	<u>26.249</u>
0.25 Element Line	<u>41.130</u>	<u>41.130</u>
Chords: Inches		
Root (Theo) WP	<u>269.50</u>	<u>5.102</u>
Tip (Theo) WP	<u>108.47</u>	<u>2.061</u>
MAC	<u>199.81</u>	<u>3.796</u>
Fus. Sta. of .25 MAC	<u>1763.50</u>	<u>27.807</u>
W. P. of .25 MAC	<u>635.52</u>	<u>12.075</u>
B. L. of .25 MAC	<u>0.0</u>	<u>0.0</u>
Airfoil Section		
Leading Wedge Angle ~ Deg	<u>10.00</u>	<u>10.00</u>
Trailing Wedge Angle ~ Deg	<u>14.92</u>	<u>14.92</u>
Leading Edge Radius, IN	<u>2.00</u>	<u>0.038</u>
Void Area ~ Ft^2	<u>13.17</u>	<u>0.00175</u>
Blanketed Area ~ Ft^2	<u>12.67</u>	<u>0.00157</u>

TABLE III. - Continued.

MODEL COMPONENT: R5 - RudderGENERAL DESCRIPTION: 2A Configuration per Rockwell Lines VL 70-000095.Scale Model = 0.019DRAWING NUMBER: VL70-000095 SS-A00091, '92

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area ~ Ft ²	<u>106.38</u>	<u>0.0394</u>
Span (equivalent) ~ IN	<u>201.0</u>	<u>3.819</u>
Inb'd equivalent chord, IN	<u>91.585</u>	<u>1.710</u>
Outb'd equivalent chord, IN	<u>50.833</u>	<u>0.966</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>34.83</u>	<u>34.83</u>
Tailing Edge	<u>26.25</u>	<u>26.25</u>
Hingeline	<u>34.83</u>	<u>34.83</u>
Area Moment (Normal to hinge line) ~ Ft ³	<u>526.13</u>	<u>0.00361</u>
(Product of Area and Mean Chord)		

TABLE III. - Concluded.

MODEL COMPONENT: WING-W 87 Lightweight OrbiterGENERAL DESCRIPTION: Orbiter Configuration per Rockwell Lines VL70-000093NOTE: (Dihedral angle is defined at the lower
surface of the wing at the 75.33%
element line
projected into a plane perpendicular to the WRL.)

Scale Model = 0.019

TEST NO.

DWG. NO. VL70-000093

SSA-A00091, 92

DIMENSIONS:

FUI L-SCALE

MODEL SCALE

TOTAL DATA

Area (Theo.) Ft²

Planform

Span (Theo) In.

Aspect Ratio

Rate of Taper

Taper Ratio

Dihedral Angle, degrees

Incidence Angle, degrees

Aerodynamic Twist, degrees

Sweep Back Angles, degrees

Leading Edge

Trailing Edge

0.25 Element Line

Chords: ~ I/H

Root (Theo) B.P.O.O.

Tip, (Theo) B.P.

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

EXPOSED DATA

Area (Theo) Ft²

Span, (Theo) In. BP108

Aspect Ratio

Taper Ratio

Chords

Root BP108

Tip 1.00 b

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

Airfoil Section (Rockwell Mod NASA)
XXXX-64 $t/c \text{ Root } \frac{b}{2} = 0.125$ $t/c \text{ Tip } \frac{b}{2} = 1.00$

Data for (1) of (2) Sides

Leading Edge Cuff

Planform Area Ft²

Leading Edge Intersects Fus M. L. @ Sta

Leading Edge Intersects Wing @ Sta

TABLE III. - Continued.

MODEL COMPONENT: El8 - ElevonGENERAL DESCRIPTION: 2A Configuration Per W-87 Rockwell Lines VL70-000093Data for (1) of (2) SidesScale Model = 0.019DRAWING NUMBER: VL70-000093; SS-A-00092

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area ~ Ft ²	<u>205.52</u>	<u>0.0742</u>
Span (equivalent) ~ in.	<u>353.34</u>	<u>6.713</u>
Inb'd equivalent chord (B.P.115.0in), in	<u>114.78</u>	<u>2.181</u>
Outb'd equivalent chord (B.P.468.3in), in	<u>55.00</u>	<u>1.045</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.208</u>	<u>0.208</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Tailing Edge	<u>-10.24</u>	<u>-10.24</u>
Hingeline ($X_o = 1387''$ F. S.)	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hinge line) Ft ³	<u>1,548.07</u>	<u>0.01062</u>
Product of Area Moment		

NOTE: The elevon panel consists of an InBD and OutBD segment. The split line dividing the segments is at B.P. 281 inches full scale (B.P. 5.339 inches Model Scale)

TABLE III. - Continued.

MODEL COMPONENT: S6 - Booster Solid Rocket Motor**GENERAL DESCRIPTION:** Booster Solid Rocket Motor (Light Weight Orbiter Configuration) body of Revolution.Data for 1 of 2 sidesModel Scale = 0.019**DRAWING NUMBER:** VL-72-000061 'C' ; VL-77-000012 'B' ; SS-A-00094

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length (Includes Nozzle), IN	<u>1741.0</u>	<u>33.080</u>
Max. Width (Tank Dia.), IN	<u>142.0</u>	<u>2.698</u>
Max. Depth (Aft Shroud), IN	<u>259.0</u>	<u>4.921</u>
Fineness Ratio	<u>6.722</u>	<u>6.722</u>
Area , Ft ²		
Max. Cross-Sectional	<u>365.87</u>	<u>0.132</u>
Planform	<u>-</u>	<u>-</u>
Wetted	<u>-</u>	<u>-</u>
Base	<u>-</u>	<u>-</u>
W.P. of BSRM Centerline, (X _t), IN	<u>400.0</u>	<u>7.600</u>
F.S. of BSRM Nose (X _t), IN	<u>743.0</u>	<u>14.117</u>

TABLE III. - Continued.

Model Component: Solid Rocket Motor (S_{10})General Description: Booster solid rocket motor, body of revolution
Data for 1 of 2 sides

Model Scale = 0.019

Drawing Number: VL77-000039

Dimensions:	<u>Full-Scale</u>	<u>Model Scale</u>
Length (includes nozzle), in.	<u>1741.0</u>	<u>33.080</u>
Max width (diameter), in.	<u>142.0</u>	<u>2.698</u>
Max depth (aft shroud diameter), in.	<u>192.0</u>	<u>3.648</u>
Fineness ratio	<u>9.0677</u>	<u>9.0677</u>
Area - ft ²		
Max cross-sectional	<u>201.062</u>	<u>0.0726</u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>
WP of BSRM centerline, (X_T), in.	<u>400.0</u>	<u>7.600</u>
FS of BSRM nose, (X_T), in.	<u>743.0</u>	<u>14.117</u>

TABLE III. - Continued.

Model Component: Solid Rocket Motor (S_{11})General Description: Booster solid rocket motor; body of revolution; data for 1 of 2 sides. (See Figure 11.) Same as S_{10} except shifted forward71.0 inches full scale.Model Scale = 0.019Drawing Number: VL77-000039

Dimensions:	<u>Full-Scale</u>	<u>Model Scale</u>
Length (includes nozzle), in.	<u>1741.0</u>	<u>33.080</u>
Max width (diameter) in.	<u>142.0</u>	<u>2.698</u>
Max depth (aft shroud, dia) in.	<u>192.0</u>	<u>3.648</u>
Fineness ratio	<u>9.0677</u>	<u>9.0677</u>
Area ~ ft ²		
Max cross-sectional	<u>201.062</u>	<u>0.0726</u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>
WP of BSRM centerline, (X_T), in.	<u>400.0</u>	<u>7.600</u>
FS of BSRM nose (X_T), in.	<u>672.0</u>	<u>12.768</u>

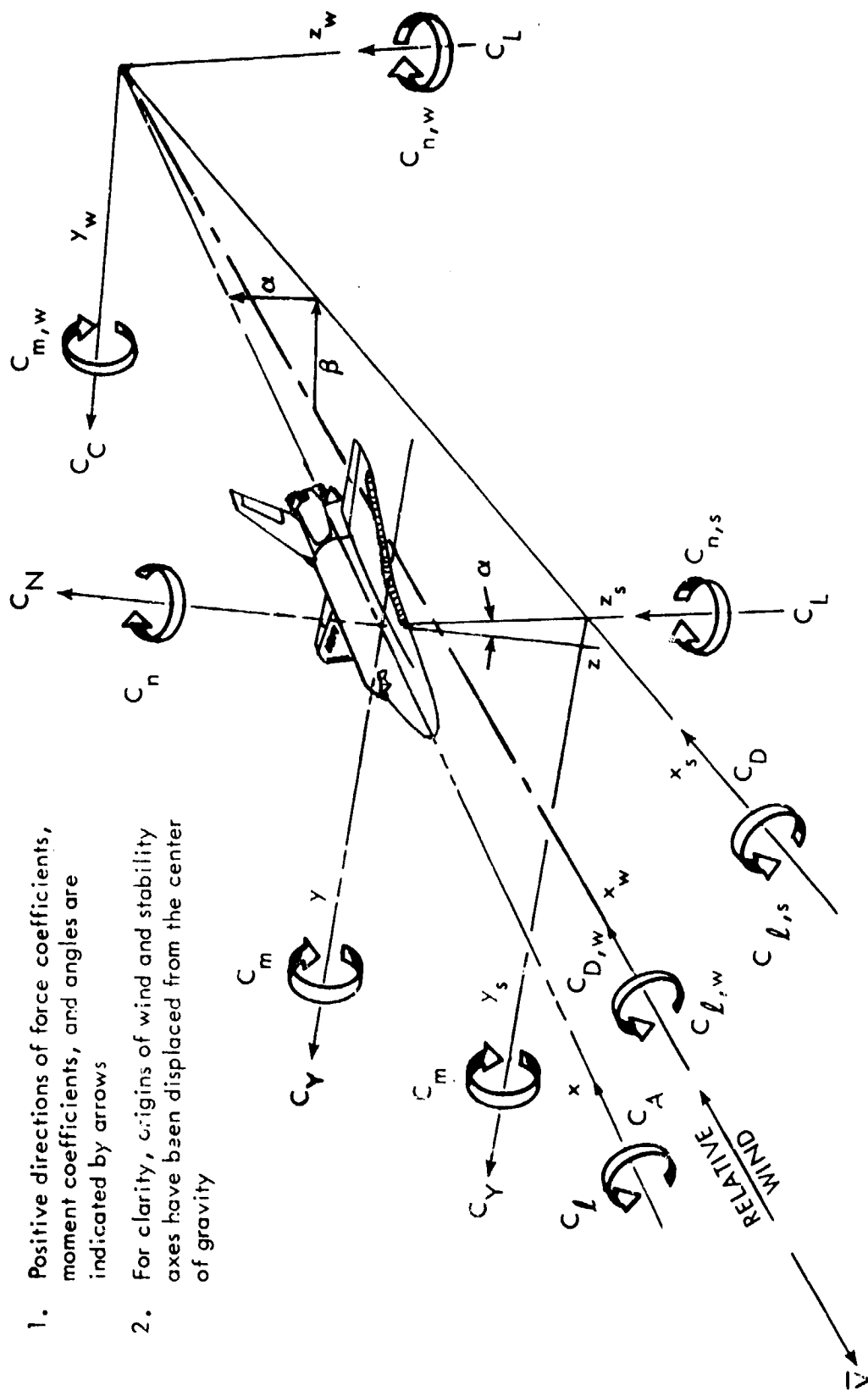
TABLE III. - Continued.

MODEL COMPONENT: T10 External TankGENERAL DESCRIPTION: External Oxygen Hydrogen TankConfiguration to which the Orbiter and the Two Solid Rocket Motors attachBody of revolutionModel Scale = 0.019DRAWING NUMBER: VL-70-000088 VL-78-000041

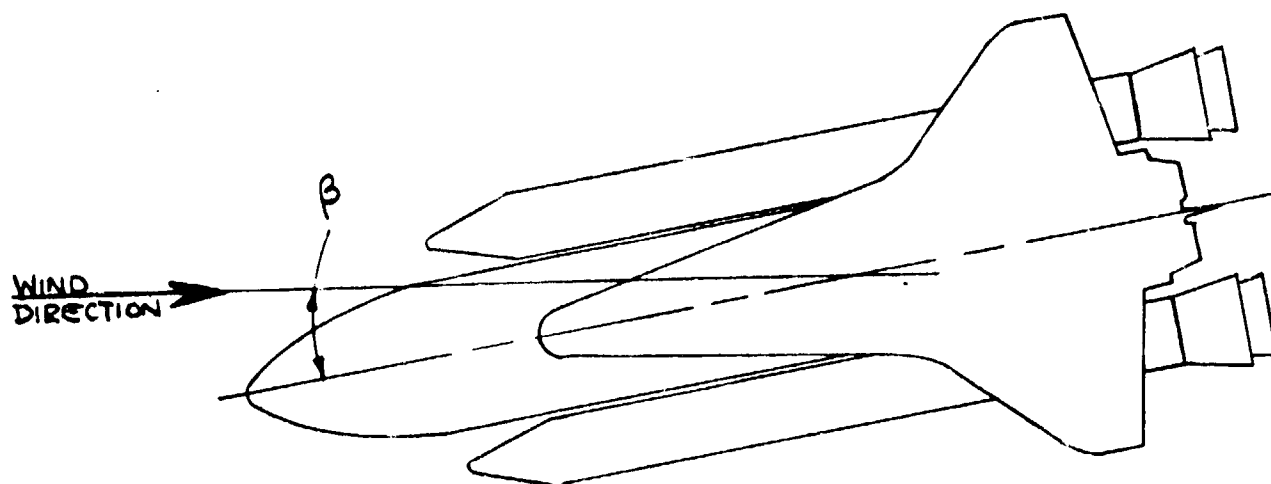
<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length, IN (Nose @ $X_t = 309.0$)	<u>1865.0</u>	<u>35.435</u>
Max. Width (Dia.), IN	<u>324.0</u>	<u>6.156</u>
Max. Depth	<u>-</u>	<u>-</u>
Fineness Ratio	<u>5.75617</u>	<u>5.75617</u>
Area Ft^2		
Max. Cross-Sectional	<u>572.56</u>	<u>0.2067</u>
Planform	<u>-</u>	<u>-</u>
Wetted	<u>-</u>	<u>-</u>
Base	<u>-</u>	<u>-</u>
W.P. of Tank Centerline, (X_t) IN	<u>400.0</u>	<u>7.600</u>

Notes

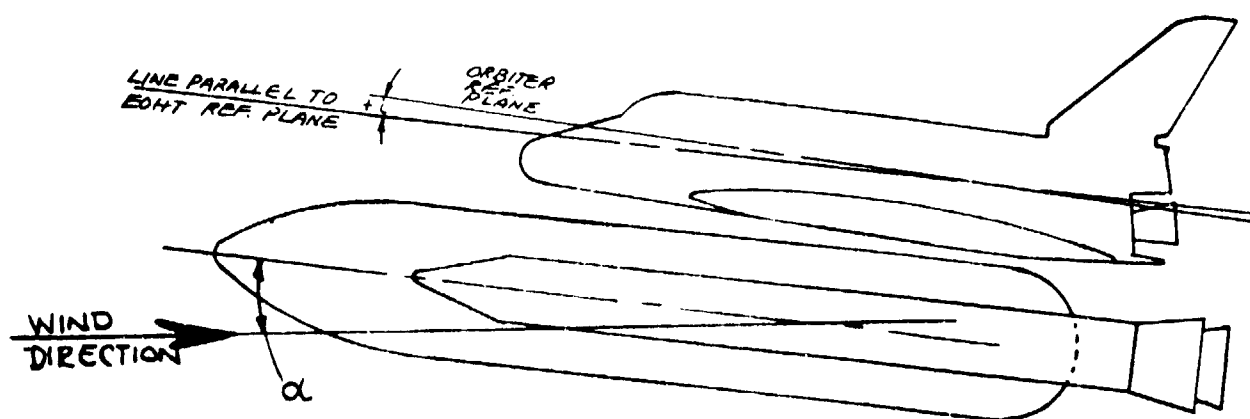
1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity



a. General
Figure 1. Axis systems.

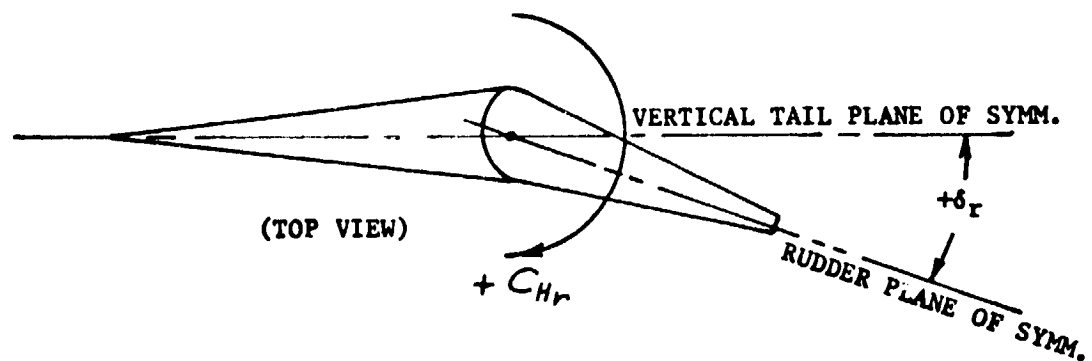


ANGLE OF SIDESLIP DEFINED (β)

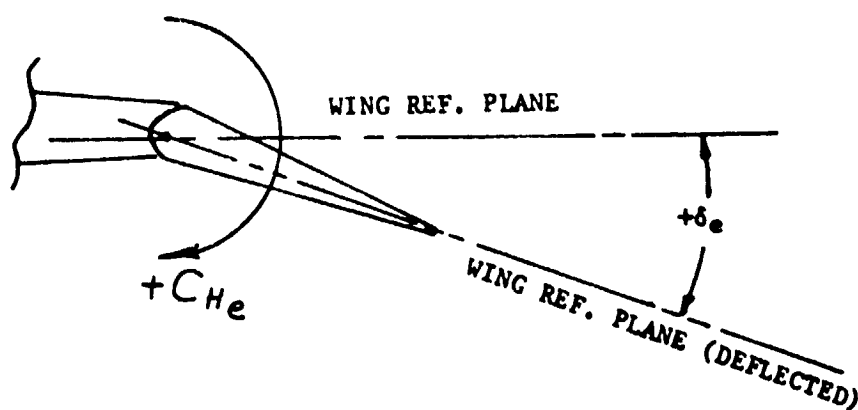


b. (α) ANGLE OF ATTACK AND ANGLE OF INCIDENCE (i) DEFINED

Figure 1 - Continued.

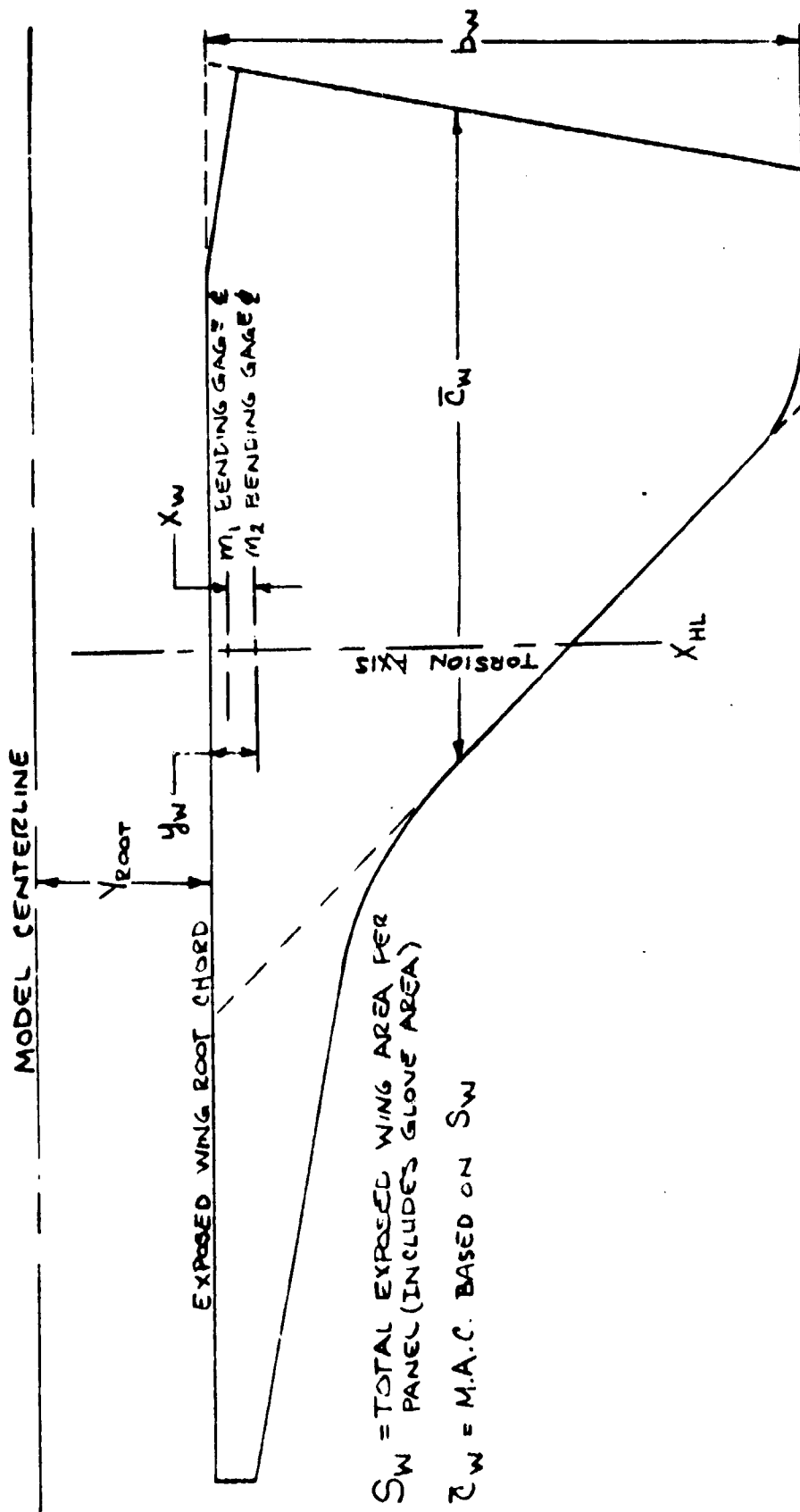


Rudder Deflection Angle (δ_r) Defined



c. Elevon Deflection Angle (δ_e) Defined

Figure 1 - Continued.



d. WING HINGE MOMENT DATA REDUCTION DIMENSIONS DEFINED

Figure 1 - Continued.

This plane is parallel to the nozzle base plate. All gimbal angles are set and measured with reference to this plane.

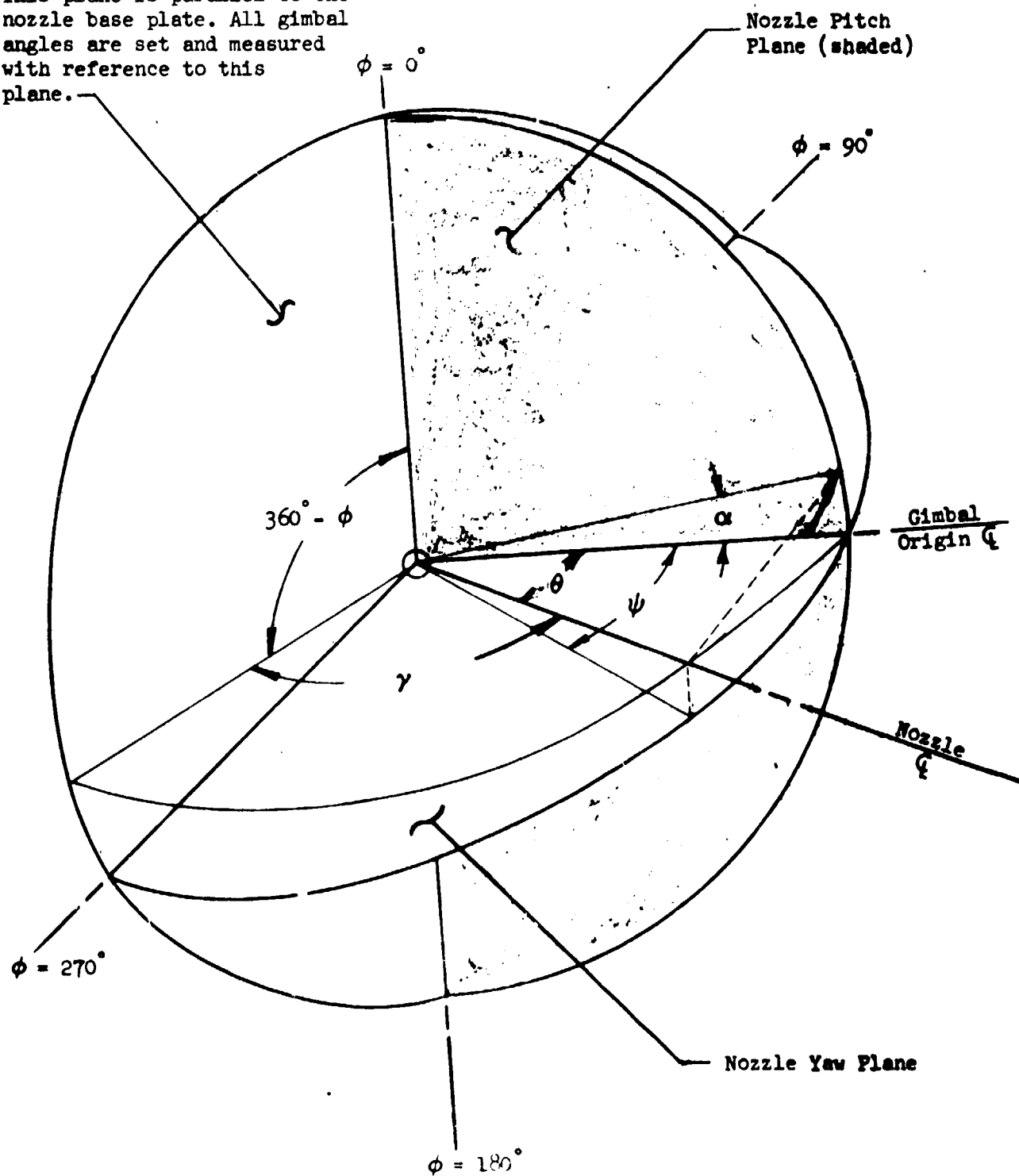


Figure 1f. Nozzle Gimbal Angle Defined

5. ASCENT VEHICLE CONFIGURATION

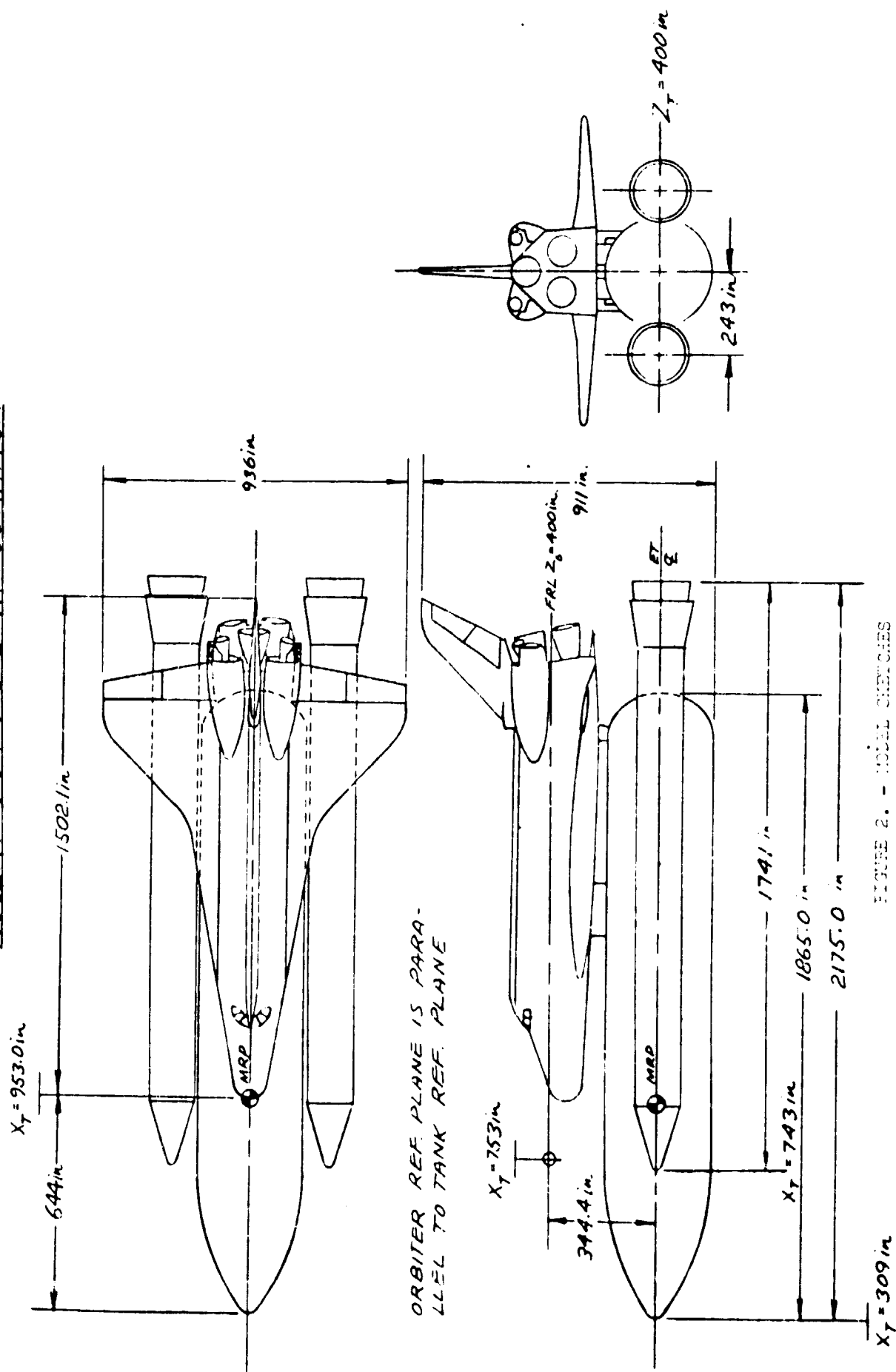
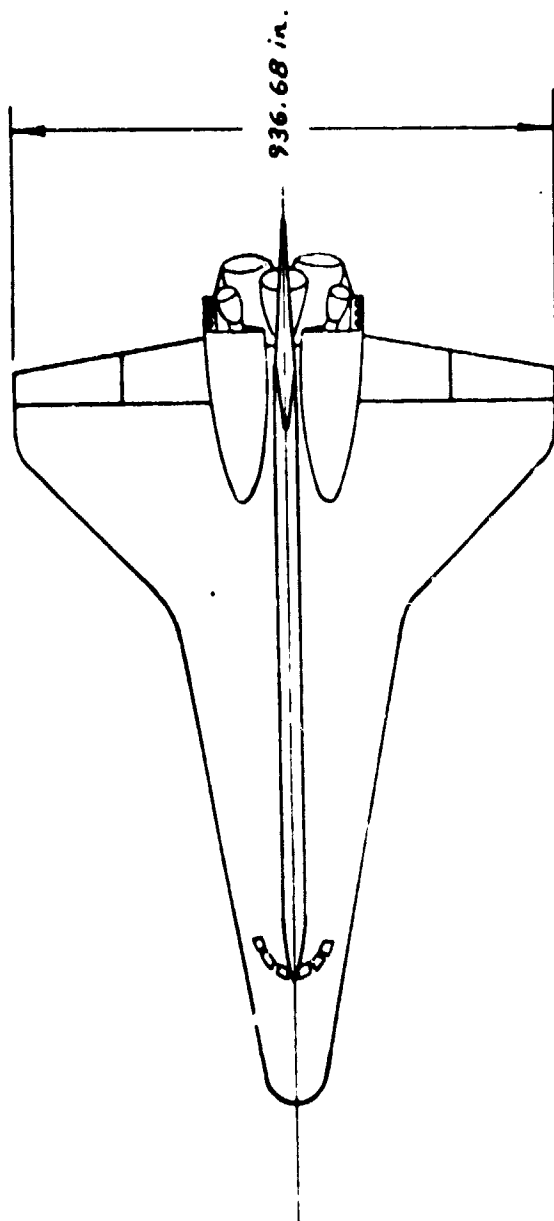


FIGURE 2. - MODEL SKETCHES



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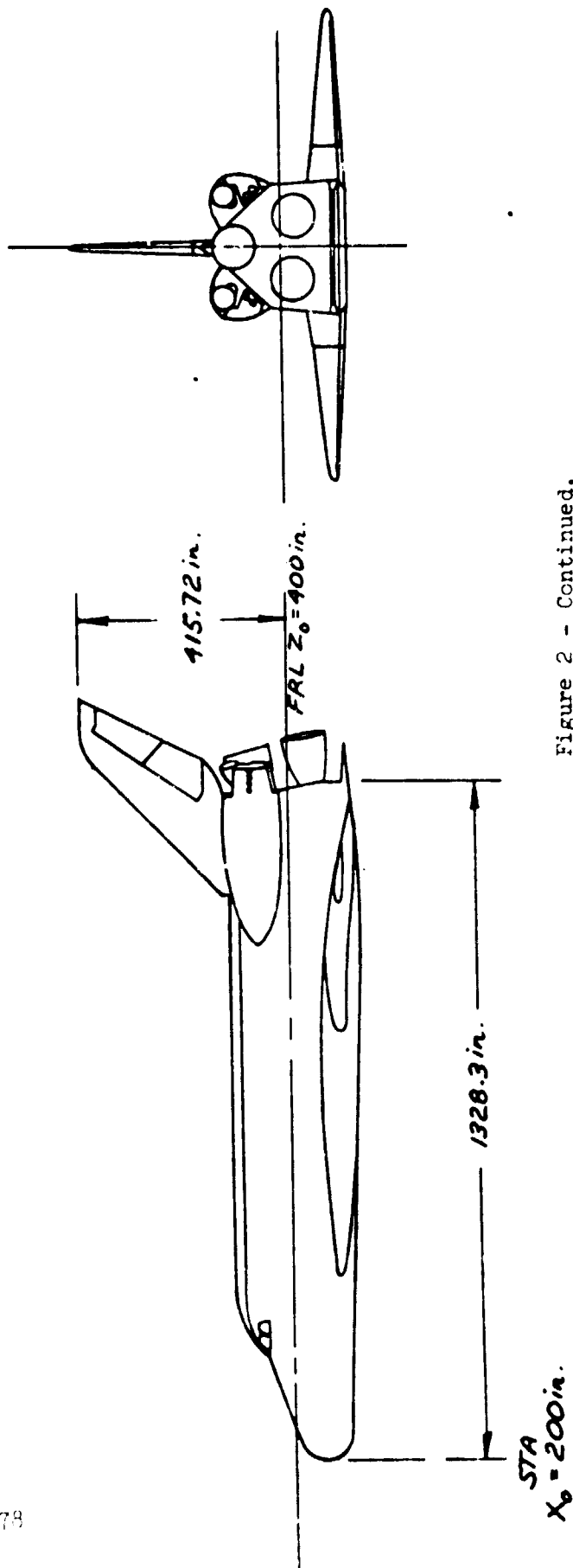
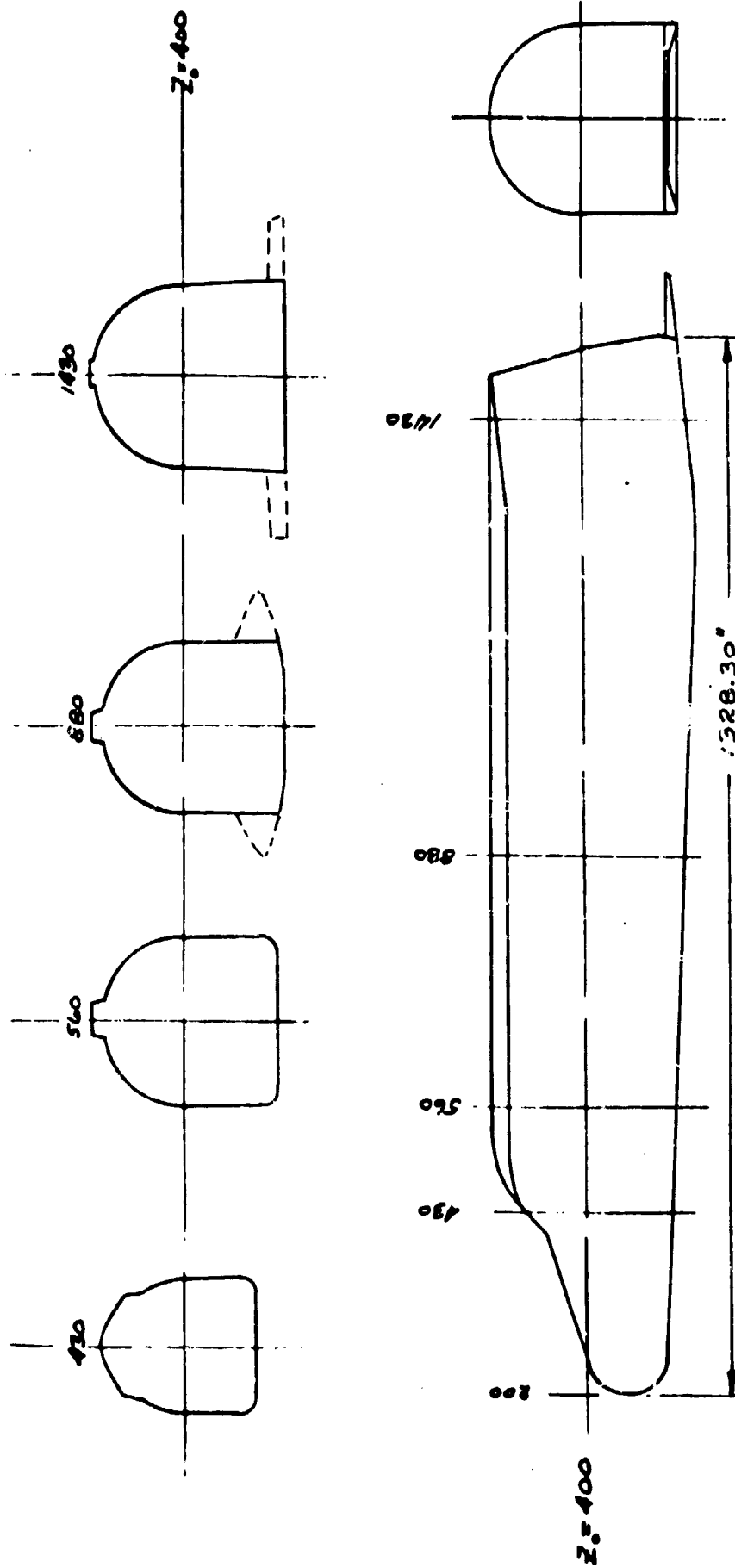


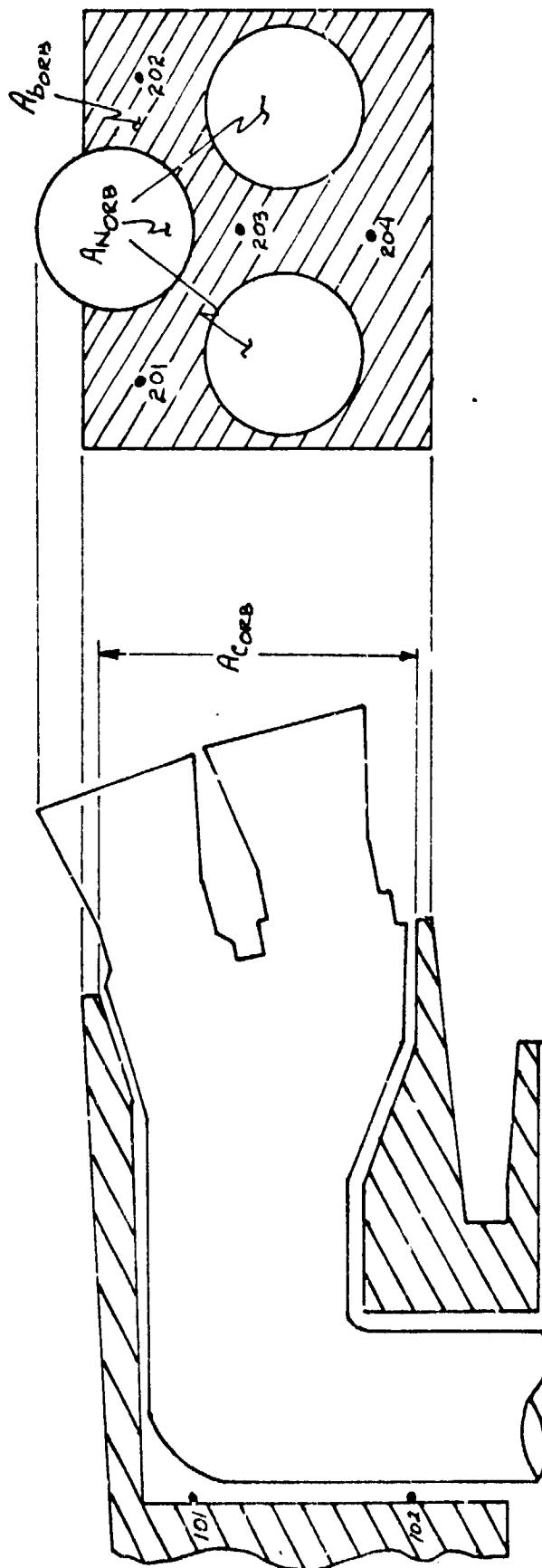
Figure 2 - Continued.

b. 2A ORBITER CONFIGURATIONS, O₁ AND C₂



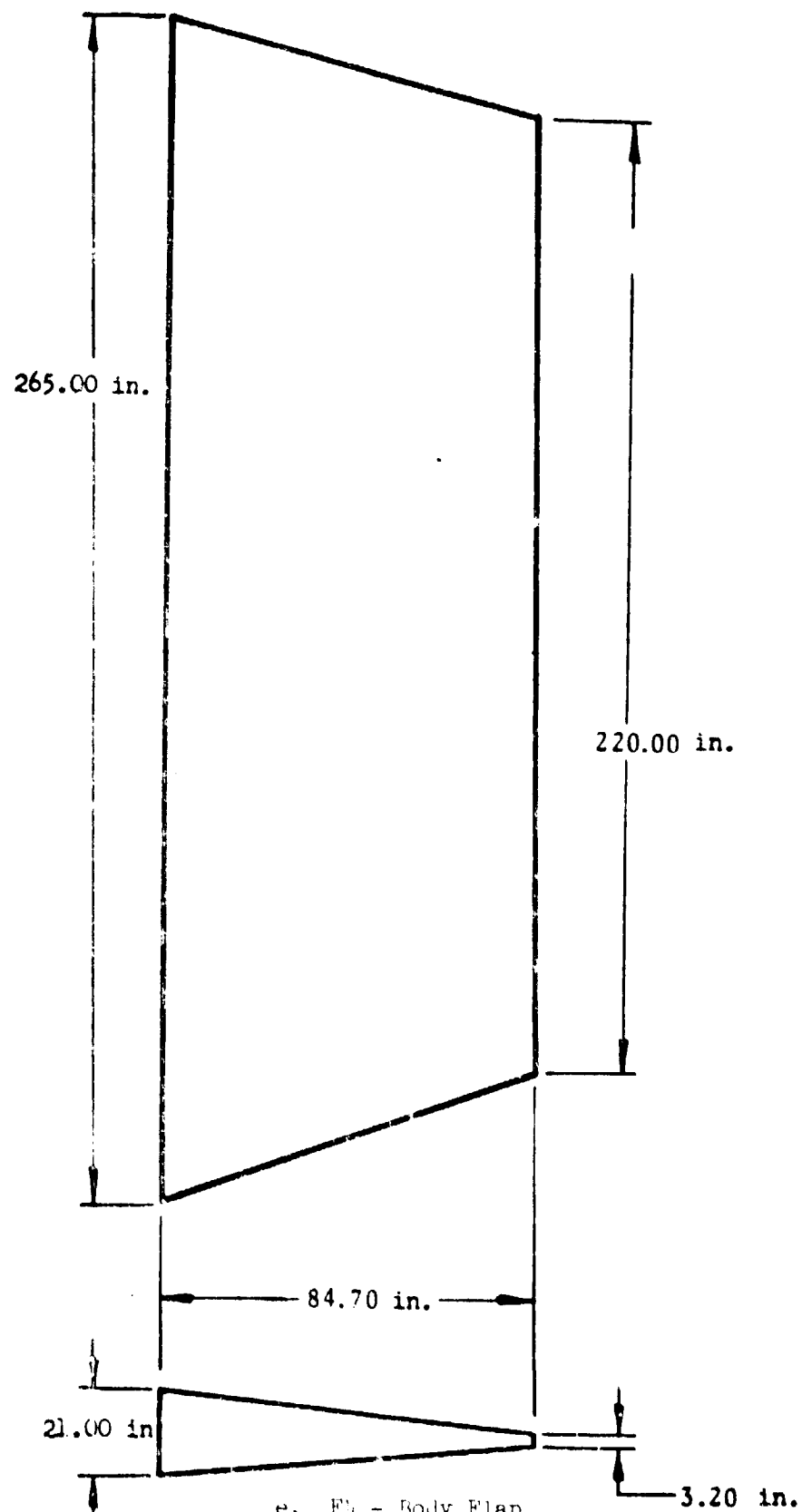
c. BASIC 2A FUSELAGE WITH BODY FLAP, B₁₀

Figure 2 - Continued.

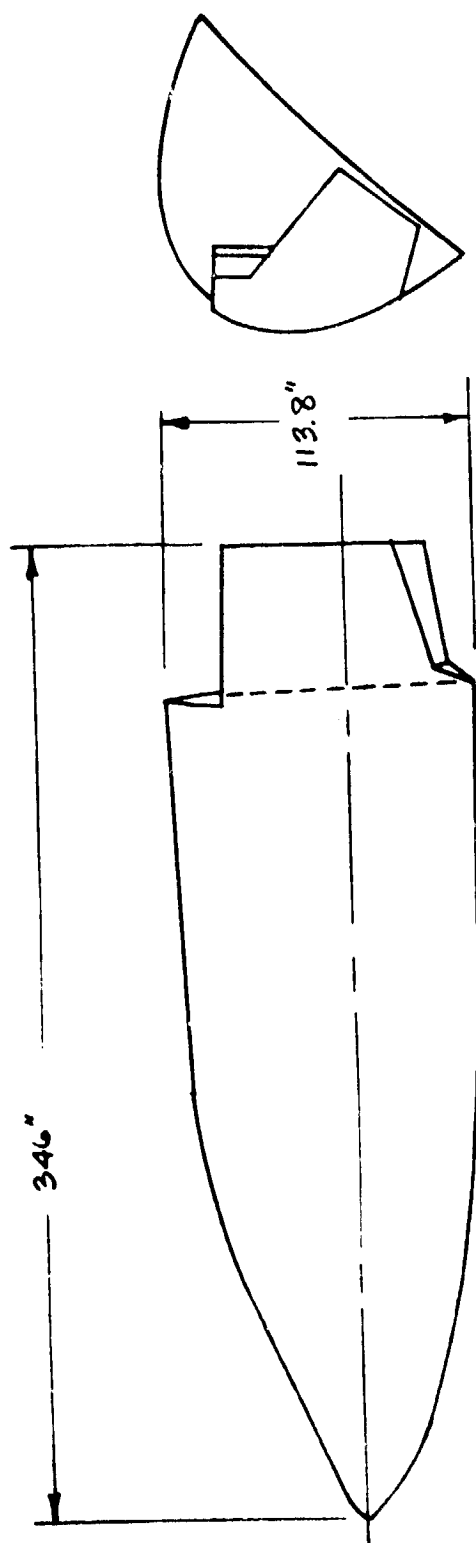


d. Orbiter Base and Cavity Pressure Tap Locations

Figure 2. - Continued.

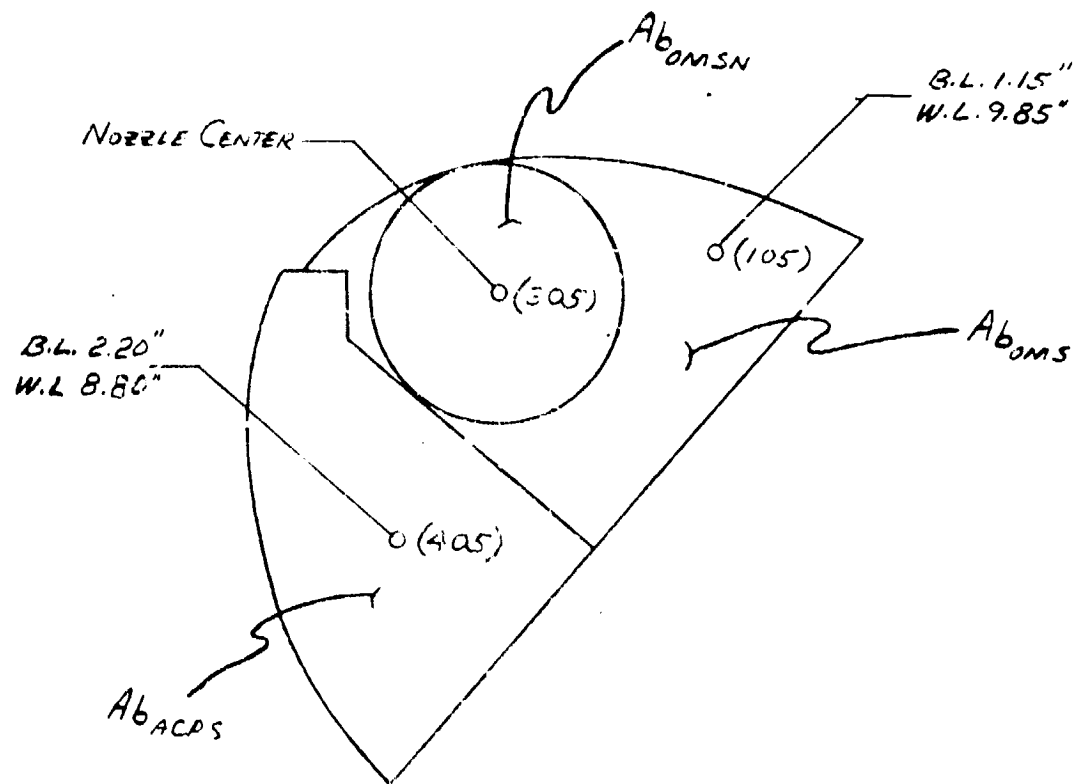


e. F_H - Body Flap
Figure 2. - Continued.



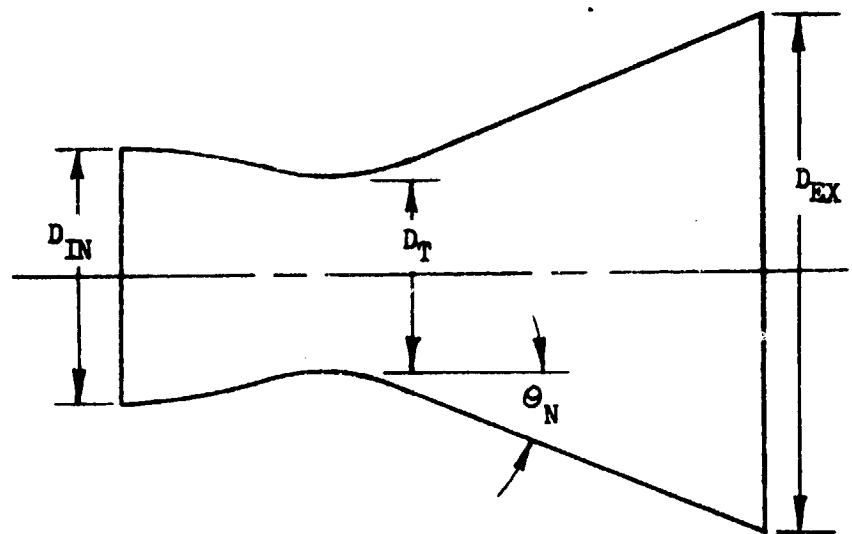
f. OMS POD CONFIGURATION, M₃

Figure 2. - Continued.



8. OMS POD BASE
STATIC PRESSURE TAP LOCATIONS

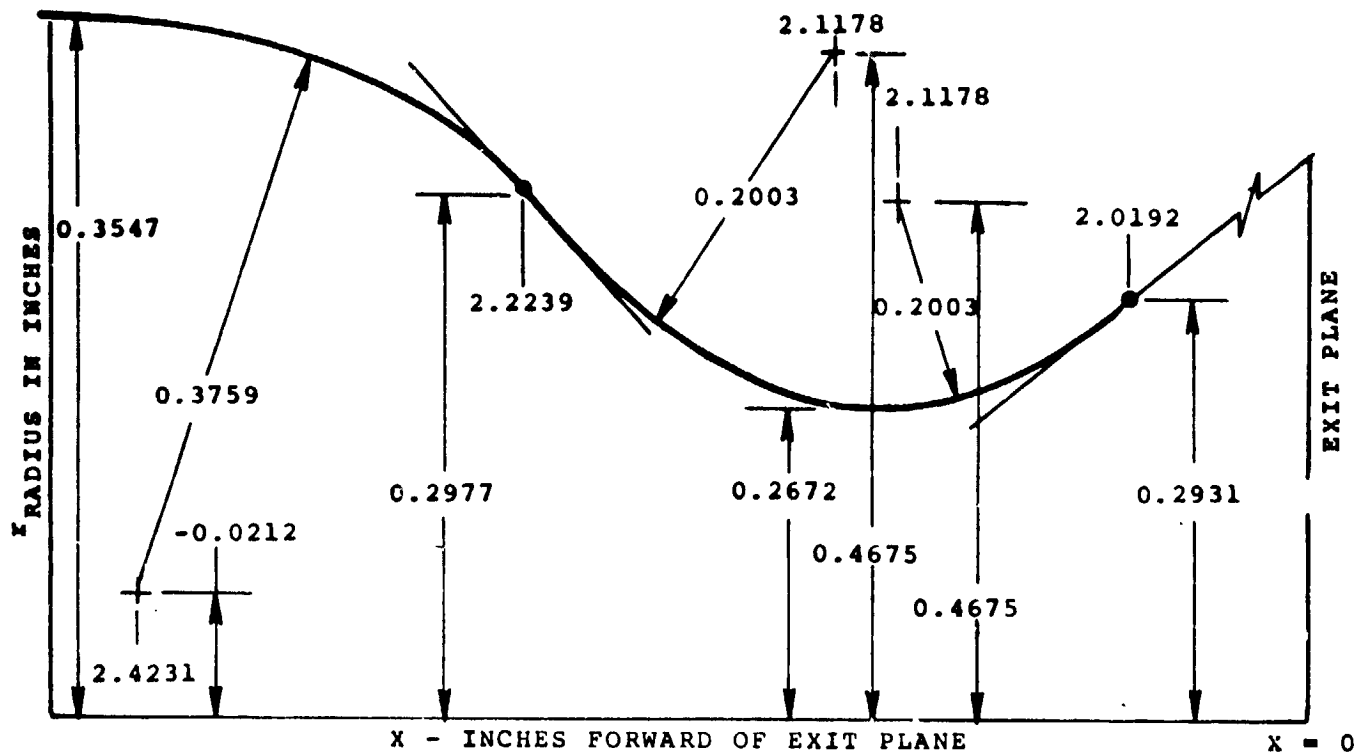
Figure 2. - Continued.



h. BASIC NOZZLE DIMENSIONS

Figure 2. - Continued.

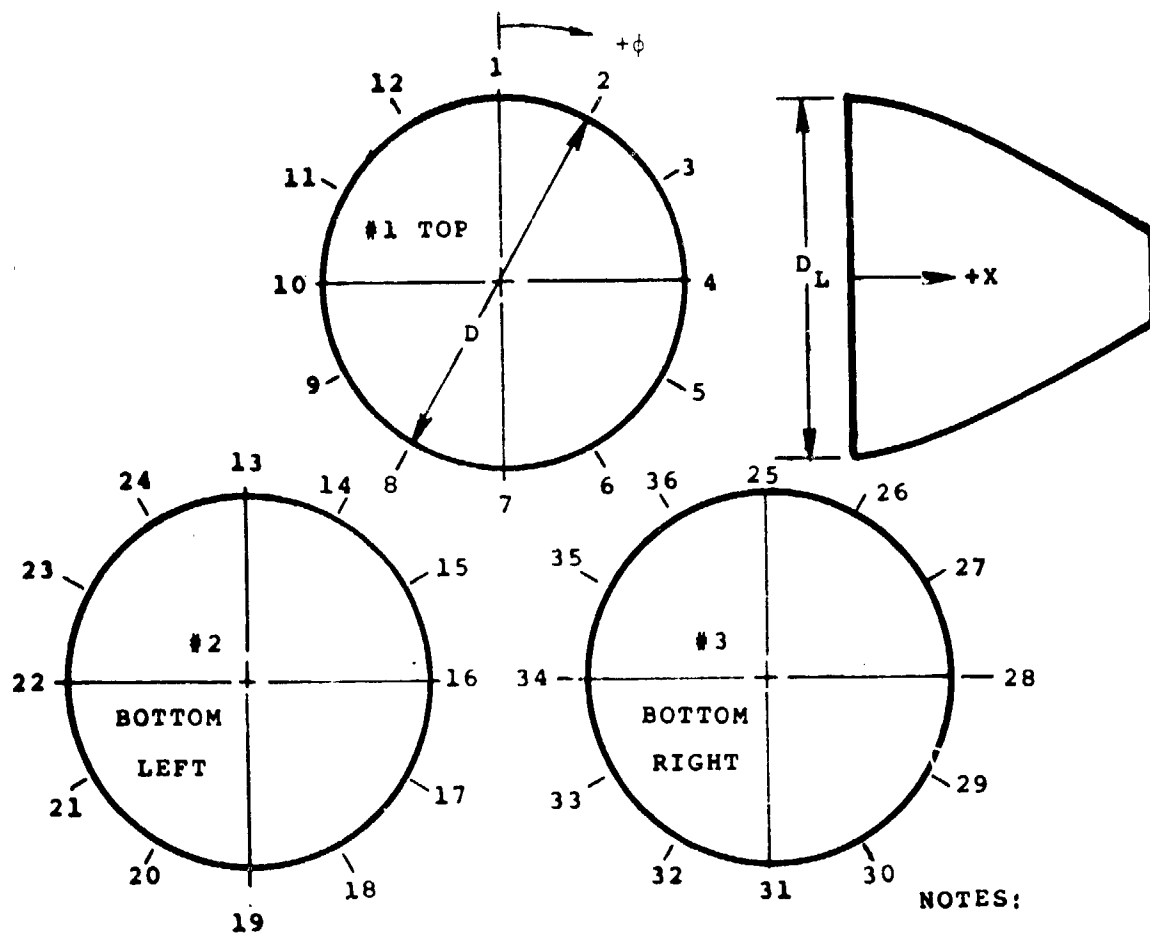
NOTE: SKETCH DIMENSIONS ARE INCHES
MODEL SCALE



X/r*	r/r*	X/r*	r/r*
0	3.2257 (EXIT PLANE)	3.6999	2.5393
0.1097	3.2107	3.9169	2.4828
0.3365	3.1793	4.0378	2.4525
0.5879	3.1430	4.1718	2.4165
0.8660	3.1010	4.3215	2.3754
1.0101	3.0786	4.4862	2.3286
1.3342	3.0258	4.6980	2.2665
1.6437	2.9727	4.8990	2.2055
1.8428	2.9368	5.0303	2.1639
2.0992	2.8892	5.1969	2.1104
2.2421	2.8615	5.3945	2.0442
2.4012	2.8301	5.6396	1.9585
2.5782	2.7942	5.7848	1.9053
2.7743	2.7530	5.9188	1.8552
2.9918	2.7058	6.1246	1.7754
3.1995	2.6591	6.3593	1.6796
3.4008	2.6123	6.5565	1.5954
3.5307	2.5808	6.7013	1.5307
		6.9143	1.4315
		7.1815	1.7665
		7.2455	1.2665
		7.4502	1.1568
		7.5569	1.0969

Figure 2. (Cont'd)

1. Nozzles N_9 and N_{10}



NOTES:
● D_{AVG} = 71.0"

θ (DEG)	λ/D	TAP NO.	D_L/D_{AVG}
0	.053	1,13,25	1.2817
30	.928	2,14,26	.6789
60	.753	3,15,27	.8592
90	.580	4,16,28	1.0141
120	.406	5,17,29	1.1479
150	.232	6,18,30	1.2324
180	.058	7,19,31	1.2817
210	.928	8,20,32	.6789
240	.753	9,21,33	.8592
270	.580	10,22,34	1.0141
300	.406	11,23,35	1.1479
330	.232	12,24,36	1.2324

J. Orbiter Nozzle, q10. Pressure Orifice Locations
Figure 2. - Continued.

NOTE: ● DIMENSIONS FOR MODEL SRM
NOZZLE TO SIMULATE $M = 3.0$,
3.5 CONDITIONS
SCALE: 0.019

● ALL DIMENSIONS IN INCHES

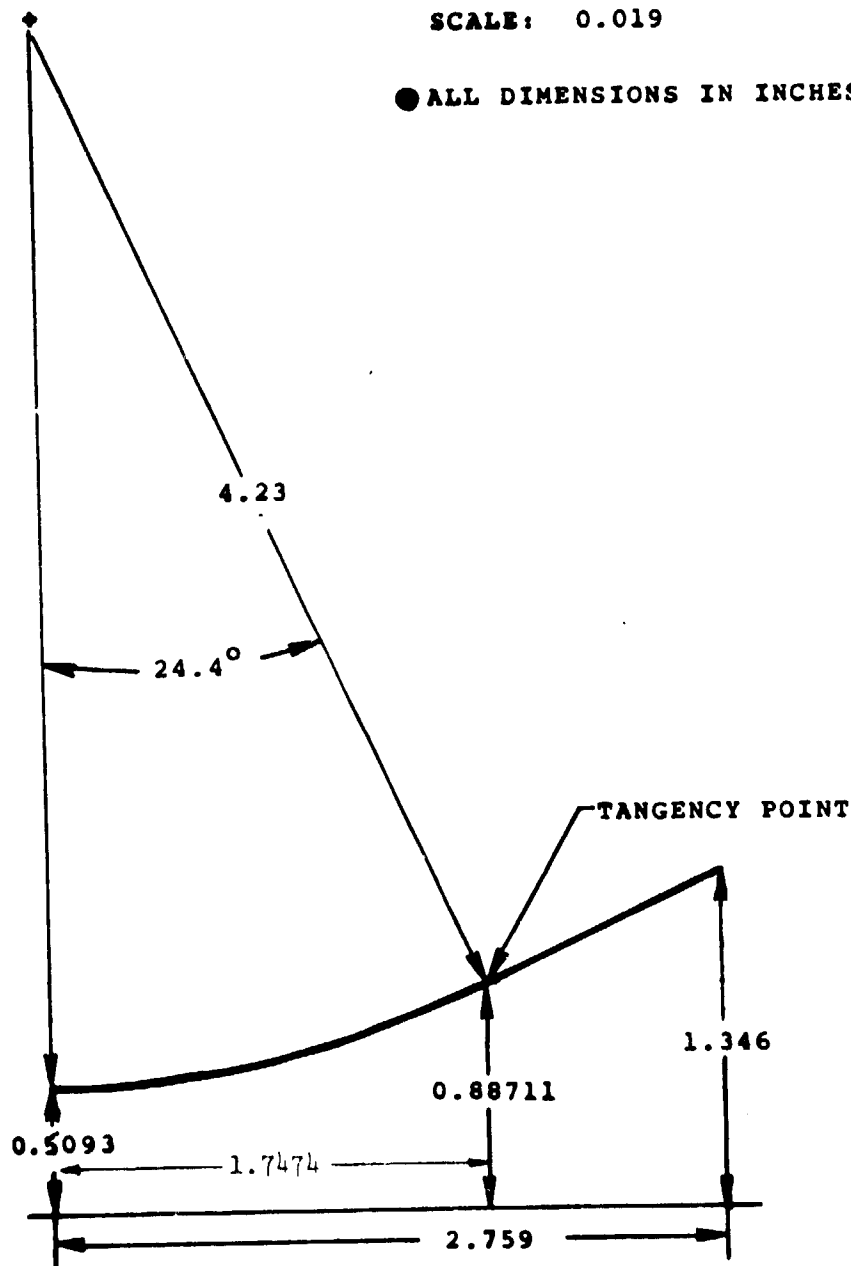


Figure 2. (Cont'd)
k. Nozzle, N_{18} , Internal Contour

COORDINATES			GEOMETRY DESCRIPTION
AXIAL x/R_t	RADIAL R/R_t		
0.0	1.000		THROAT PLANE
0.04689	1.00184		CIRCULAR ARC SECTION
0.11719	1.01155		
0.16409	1.02286		
0.21098	1.03832		
0.23442	1.04766		CONICAL SECTION
0.54862	1.18106		CONICAL SECTION
0.80001	1.26777		CONICAL SECTION
0.86284	1.31443		CONTOURED SECTION
1.13502	1.42312		
1.50148	1.57291		
1.93249	1.73122		
2.29137	1.95372		
2.67702	1.97678		
3.08772	2.09868		
3.52342	2.21816		
3.98088	2.33472		
4.45984	2.44695		
4.79089	2.51908		
5.13099	2.58921		
5.42124	2.64578		
			CONTOURED SECTION
			EXIT PLANE

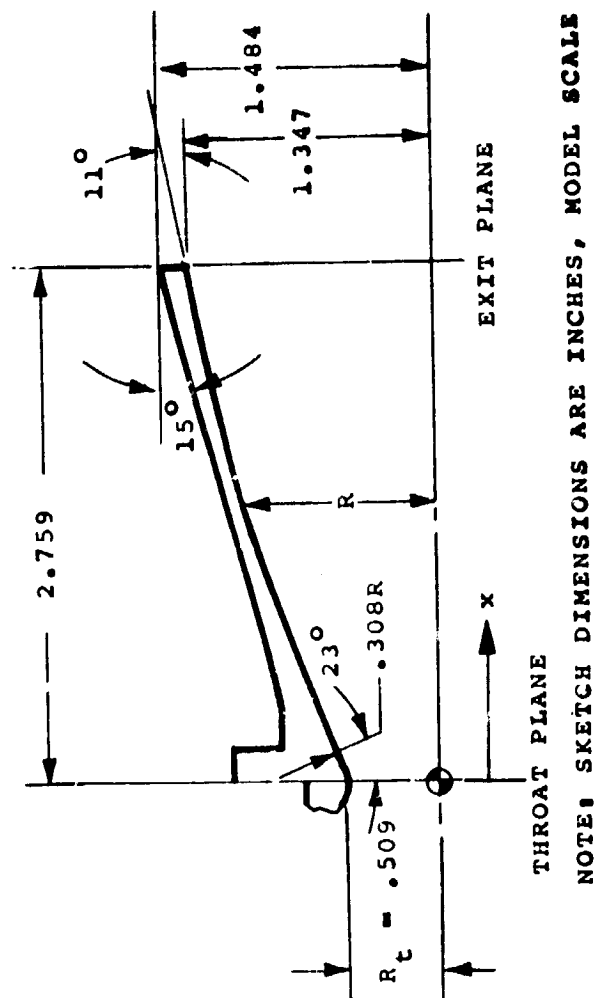
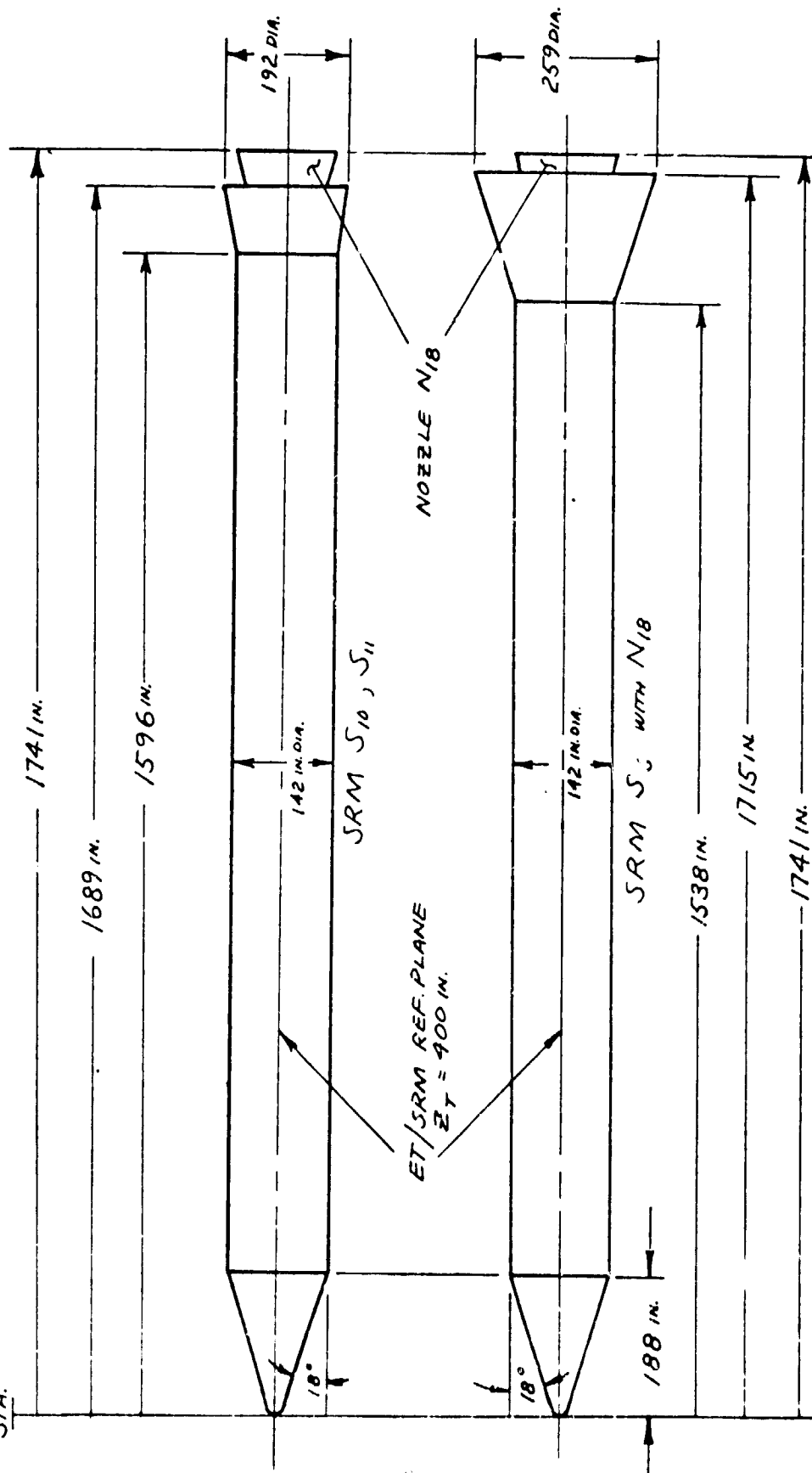


Figure 2 (Cont'd)
 β . Nozzle, N_{17} , Internal Contour

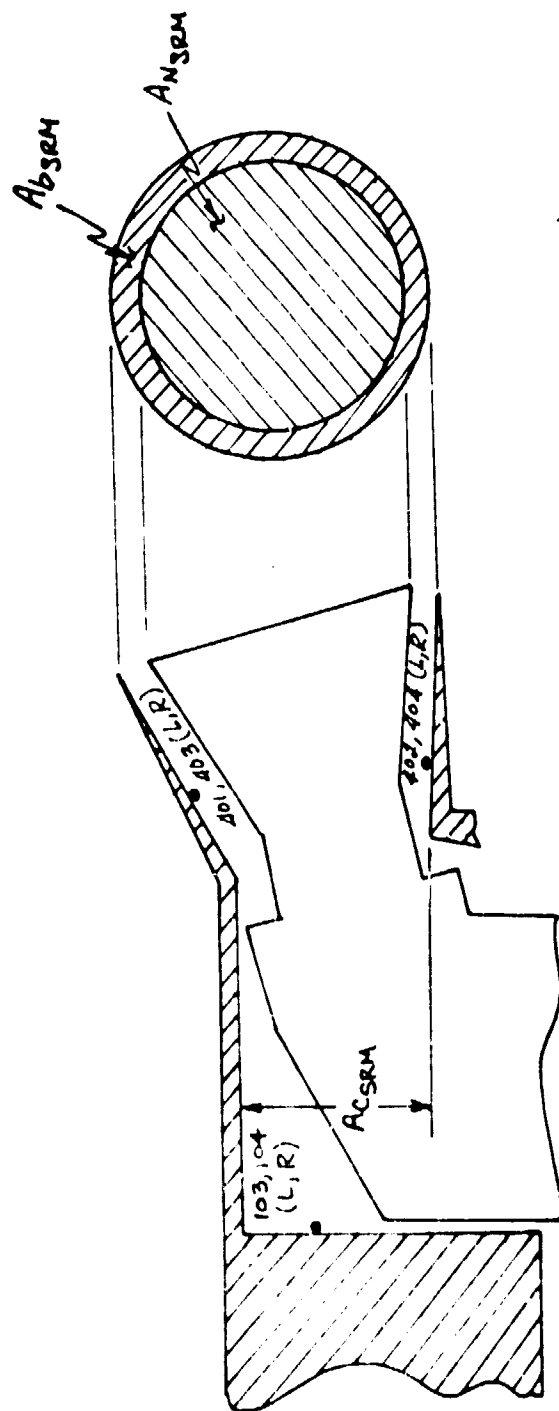
$X_T = 672 \text{ IN. } (S_{11})$
 $X_T = 743 \text{ IN. } (S_{10})$
 $X_S = 200 \text{ IN.}$
 STA.



STA.
 $X_S = 200 \text{ IN.}$
 $X_T = 743 \text{ IN.}$

E. SOLID ROCKET MOTOR CONFIGURATIONS

Figure 2. - Continued.



n. SRM Pressure Tap Locations

Figure 2. - Continued.

c. EXTERNAL TANK
 T_{10}

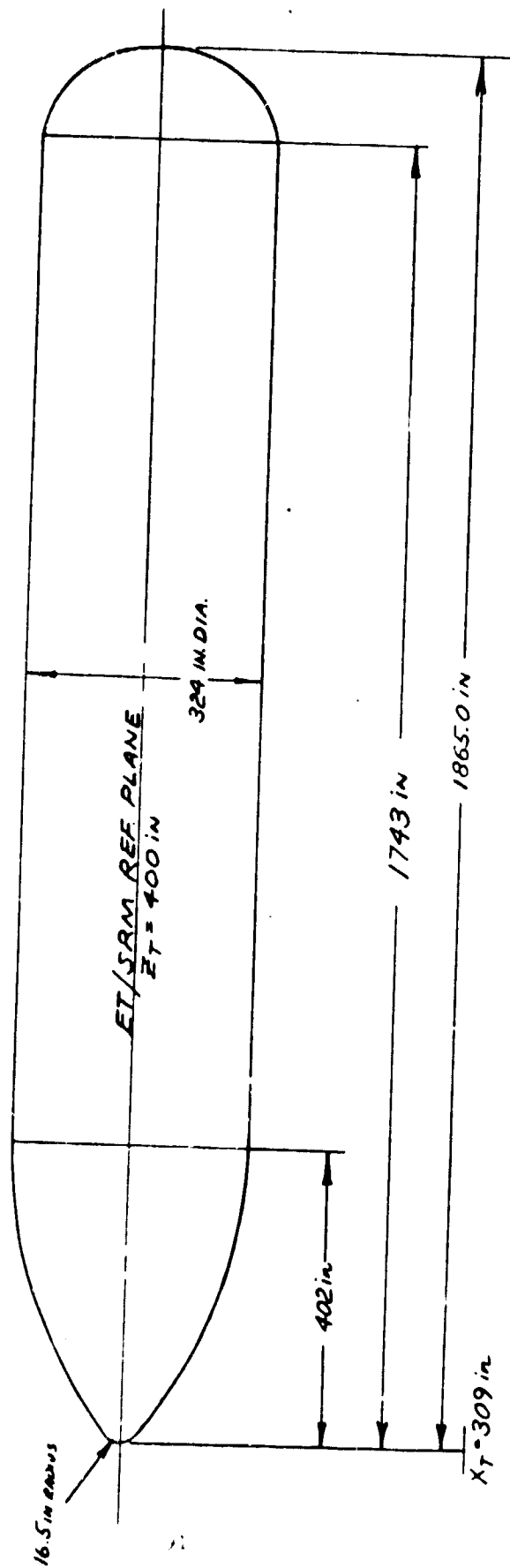
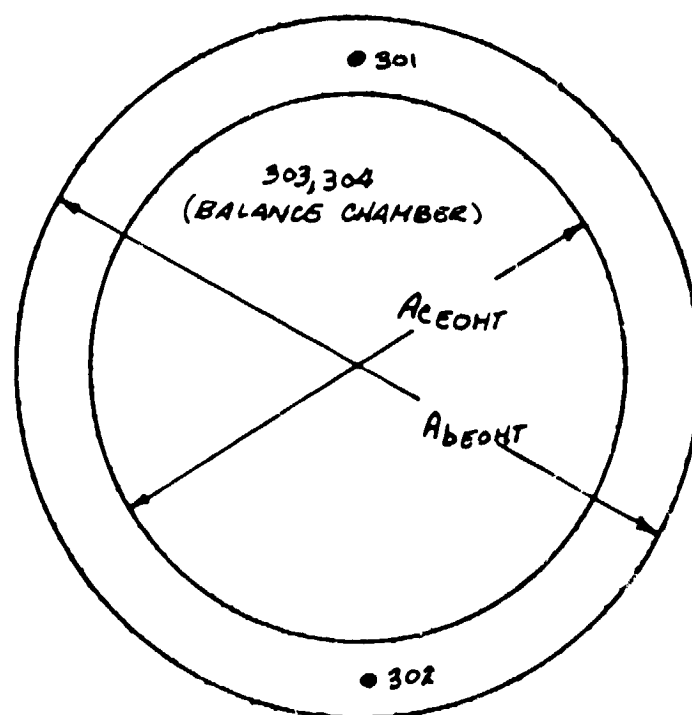
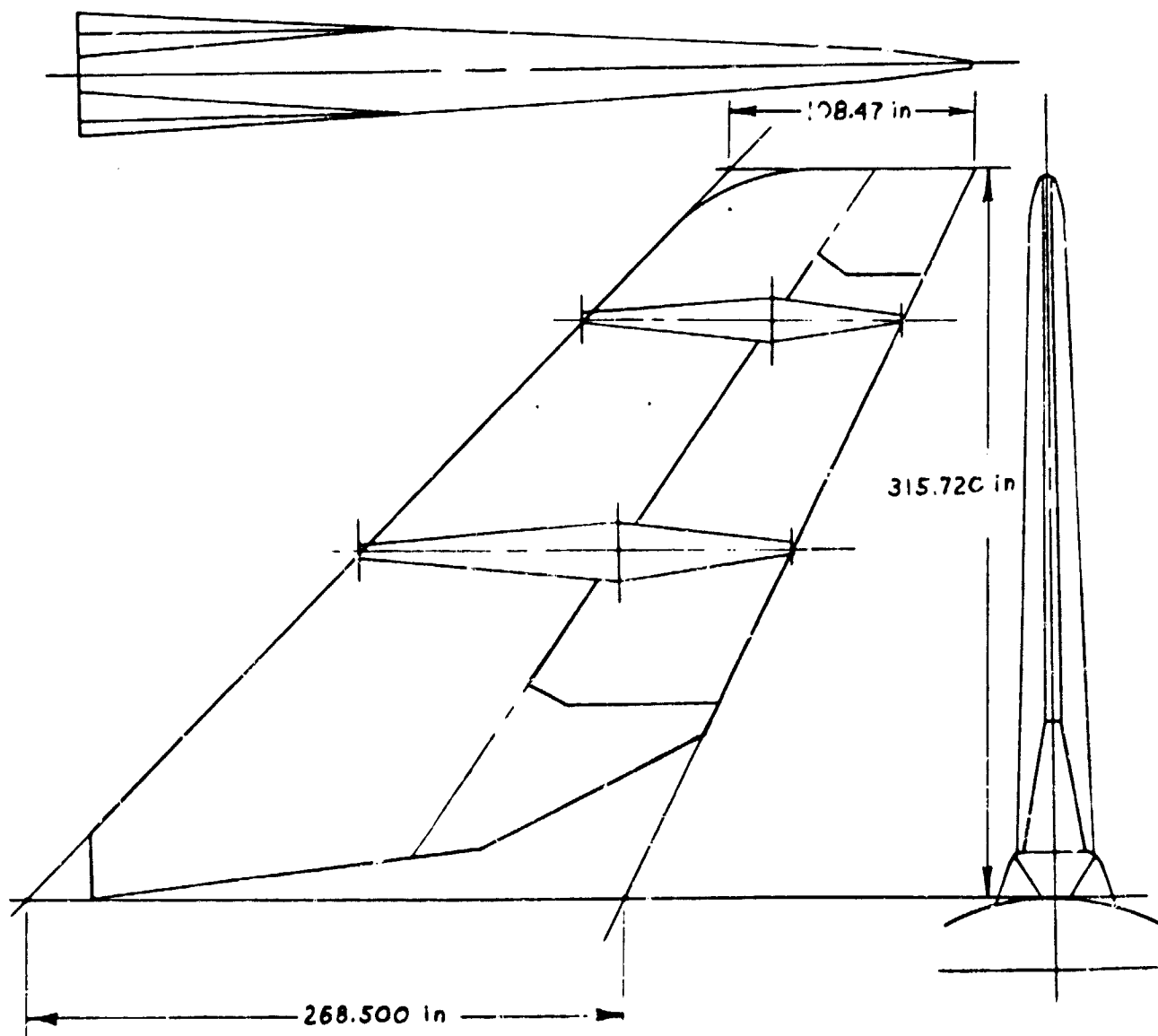


Figure 2. - Continued.



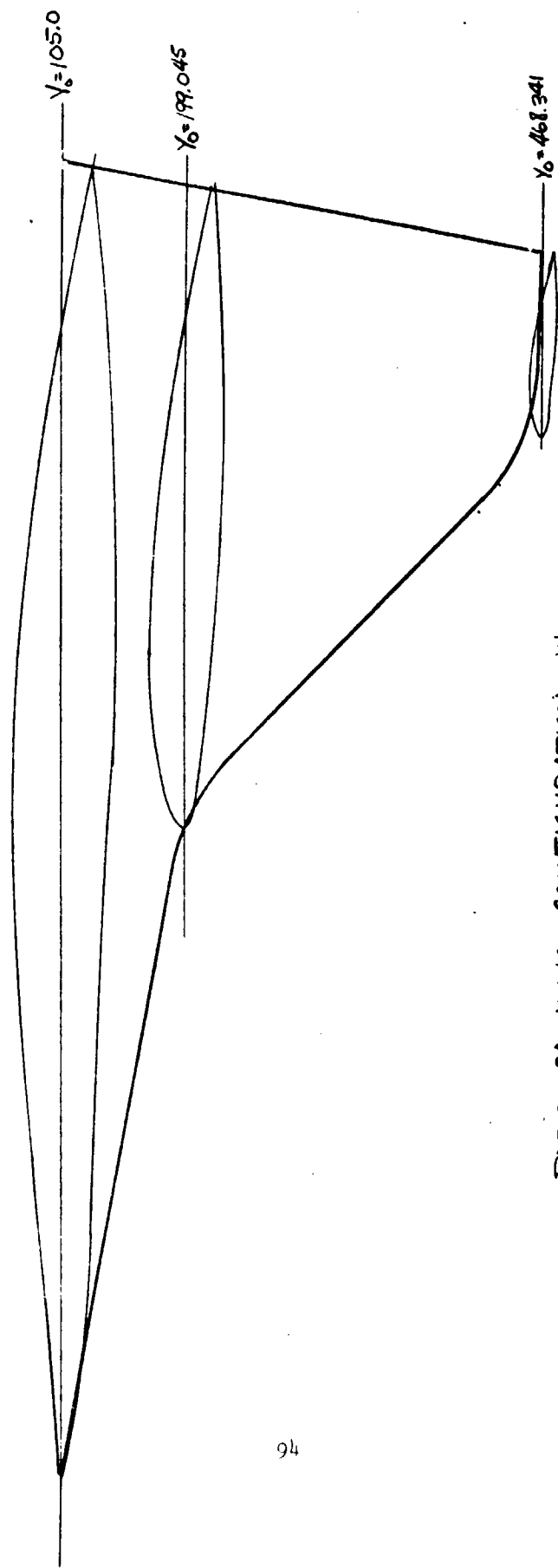
EOHT Pressure Tap Locations

Figure 7. - Continued.



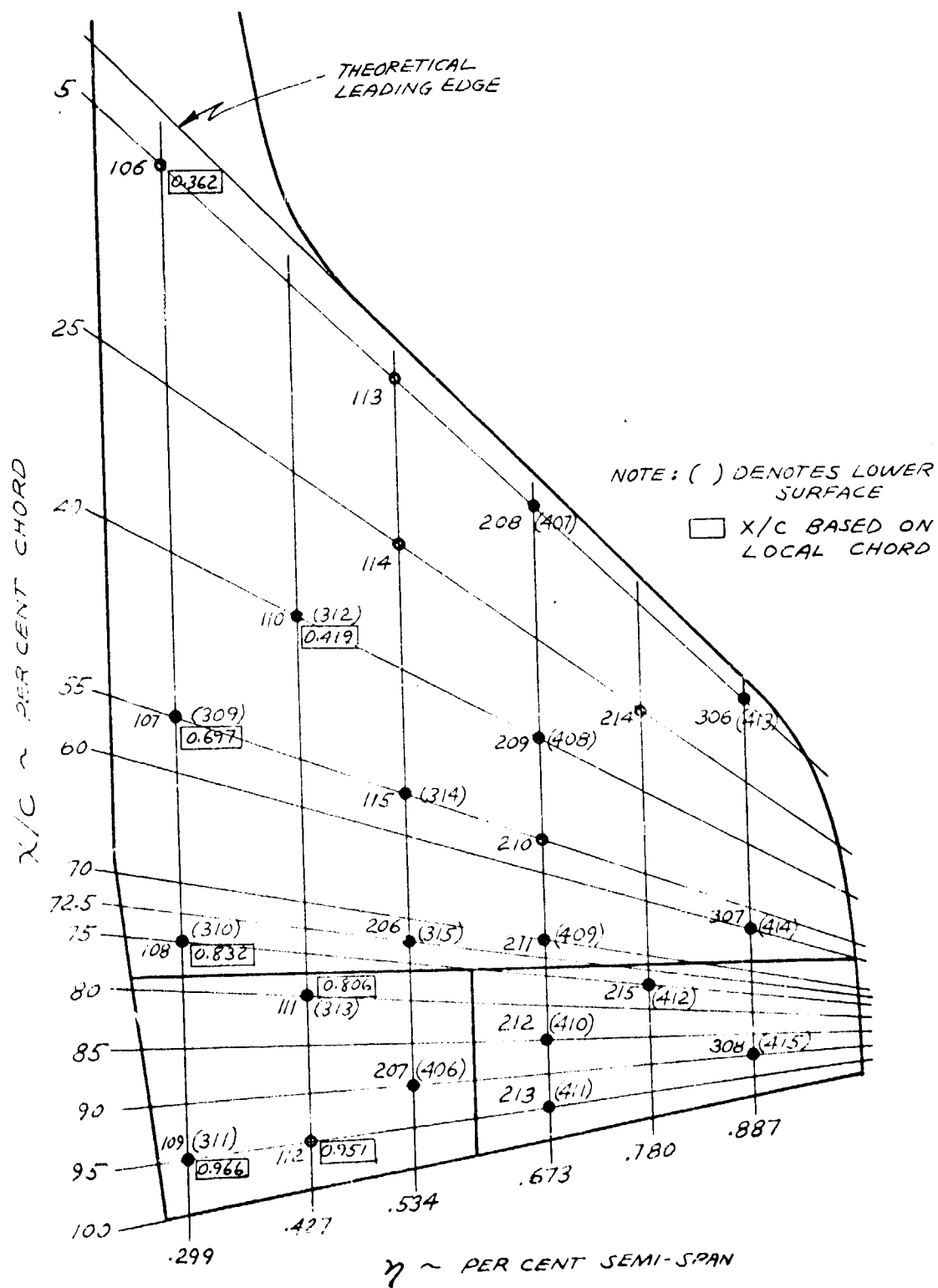
1. VERTICAL TAIL, V₅

Figure 2. - Continued.

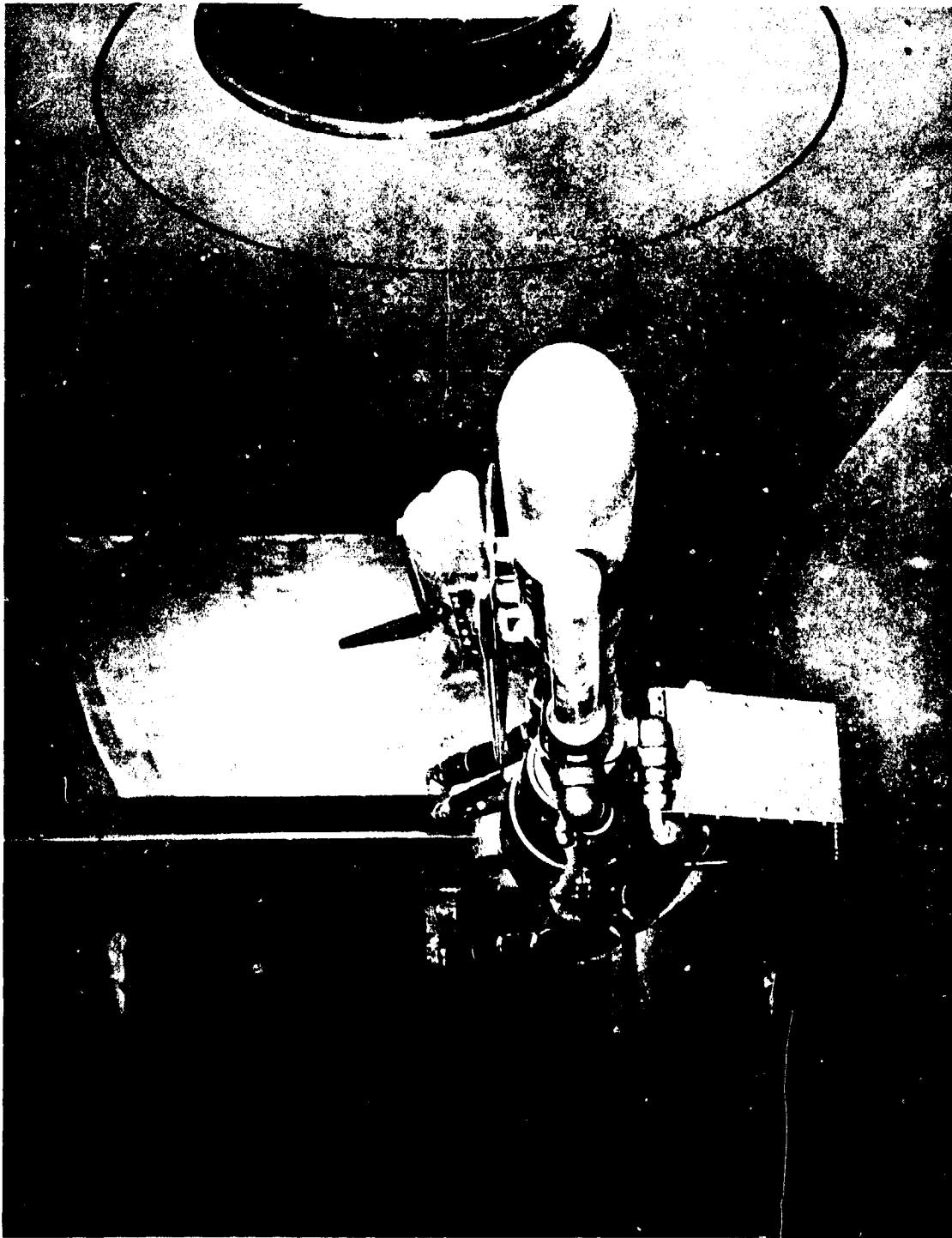


r. BASIC 2A WING CONFIGURATION, W87

Figure 2. - Continued.

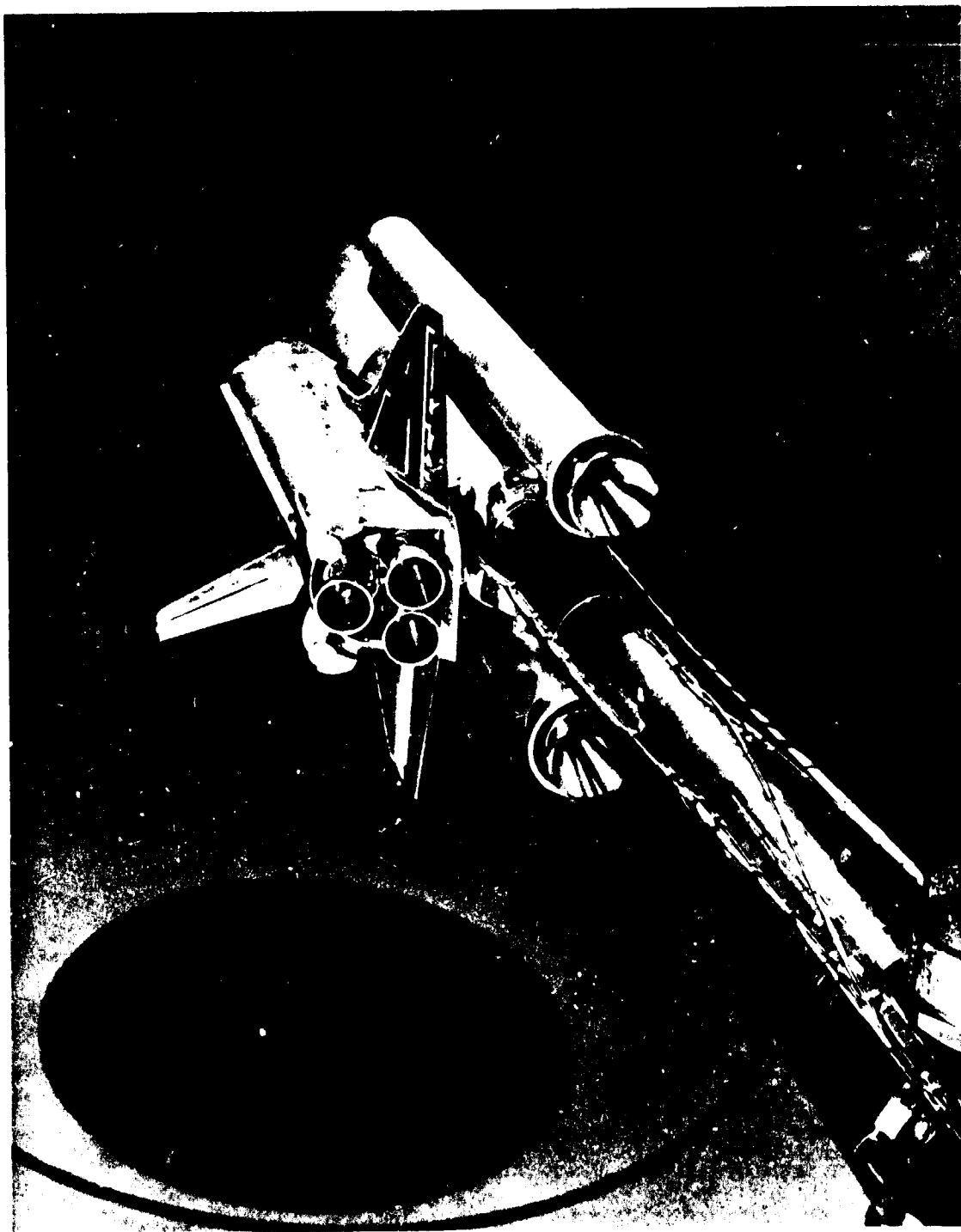


s. Wing Pressure Tap Locations for Righthand Wing Panel
 Figure 2. - Concluded.



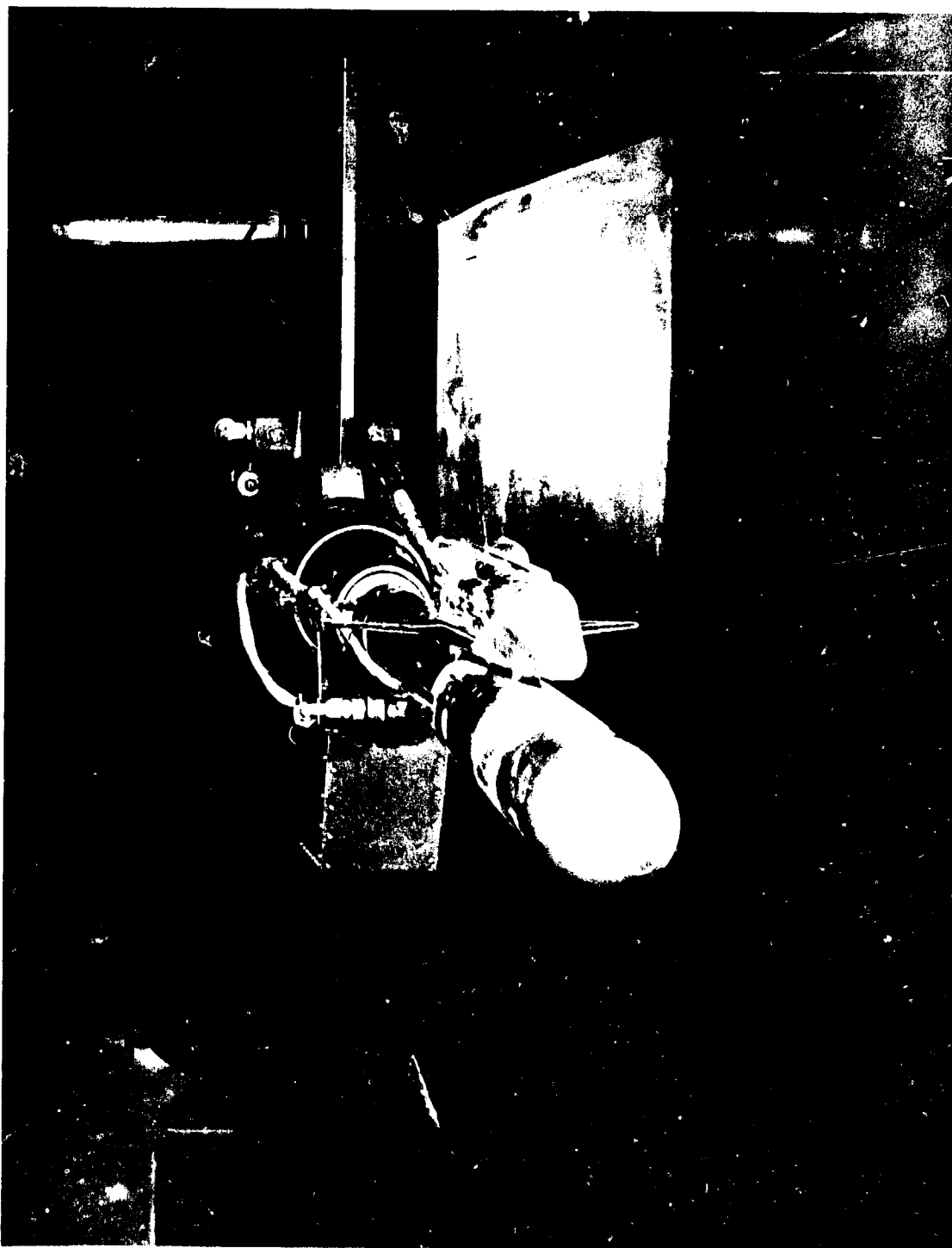
(a) Front view of launch vehicle with high pressure plumbing

Figure 3. - Model installation photographs.



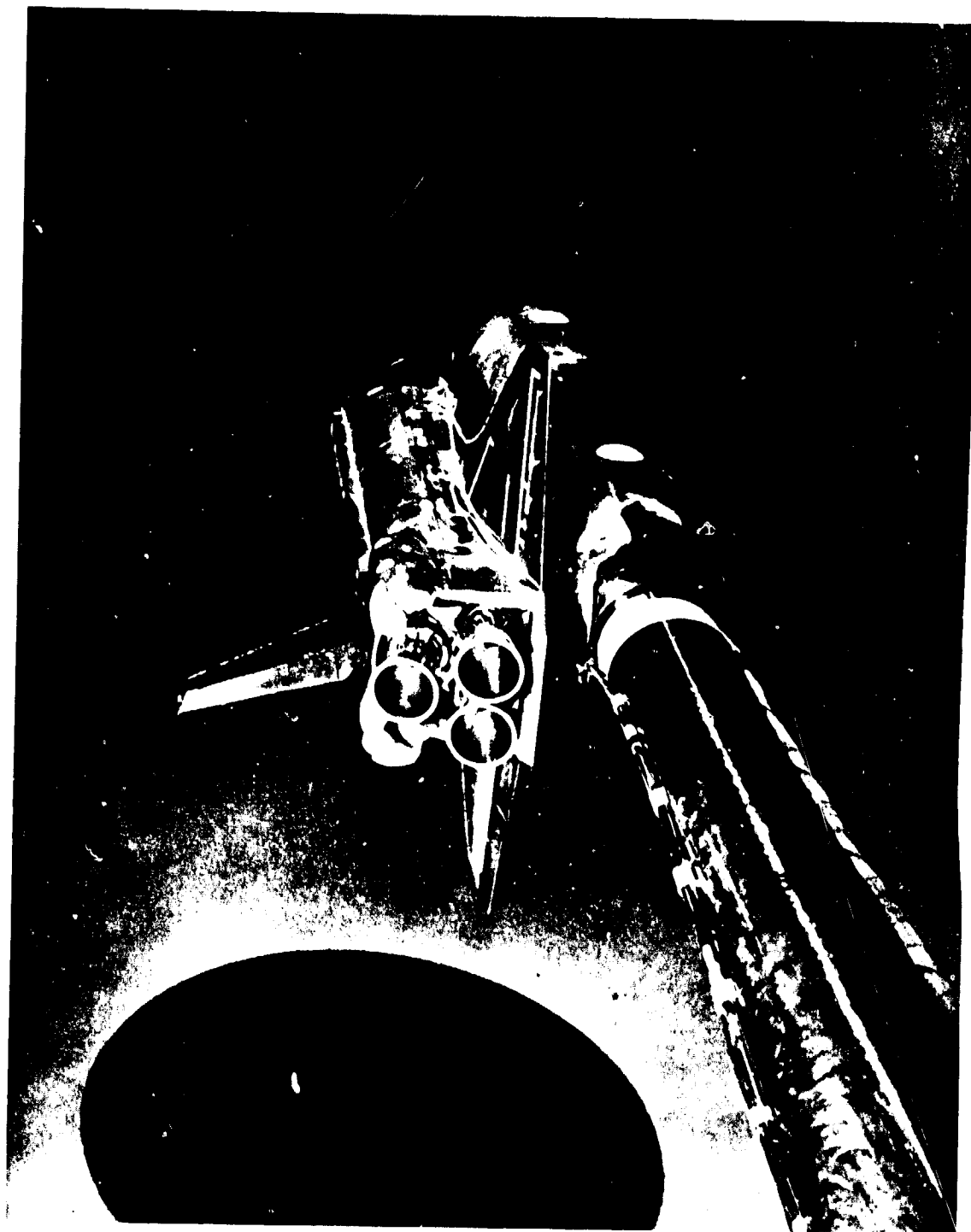
(b) Aft view of launch vehicle

Figure 3. - Continued.



(c) Front view of second stage (SRB's off)

Figure 3. - Continued.



(a) Art view of second stage (ORB's off)

Figure 3. - Concluded.

APPENDICES

TABULATED SOURCE DATA

Page

Wing Pressure Data C-1

(For Force Data - See Volume I, Page A-1)

(For Nozzle Pressure Data - See Volume I, Page B-1)

Tabulations of plotted data are available
on request from Data Management Services

APPENDIX C
WING PRESSURE DATA

Dataset Name Key

UBZ---, Wing Upper Surface

LBZ---, Wing Lower Surface

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AVES 07-710 1A12C OR T1 S1 UPPER WING PRESSURE (LB/2031) (16 APR 74)

REFERENCE DATA
 840' = 2490.0000 SQ.FT. 1040' = 953.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

MACH (1) = 2.499 ALPHA (1) = -7.040 PTO = 2314.000 PO = 136.000 R/PT = 3.927 Q = 993.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.080	.2845	.3575	.3996
.250	.0083		
.400		-.0486	
.419	-.0375		
.550		-.0826	-.0944
.600			-.0851
.700		-.1131	
.725		-.1016	
.806	-.0159		
.850		-.1047	
.900		-.0134	-.0828
.951	.0896		

MACH (1) = 2.499 ALPHA (2) = -5.630 PTO = 2314.000 PO = 136.000 R/PT = 3.927 Q = 993.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.080	.2363	.3001	.3966
.250	-.0830		
.470		-.0812	
.419	-.0843		
.550		-.1080	-.1060
.600			-.0810
.700		-.1329	
.725		-.1221	
.806	-.0965		
.850		-.1299	
.900		-.0410	-.1011
.951	.0882		

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

ANES 87-710 1A12C OF T1 S1 UPPER WING PRESSURE (LB/2031)

MACH (1) = 2.499 ALPHA (3) = -3.840 PTO = 2514.000 PO = 136.000 R/PT = 3.927 Q = 993.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .080 .2008 .2587 .3532
 .290 -.0335
 .400 -.1022
 .419 -.0875
 .590 -.1256 -.1276 -.0915
 .600
 .700 -.1465
 .725 -.1379
 .808 -.0998
 .850 -.1419
 .900 -.0823 -.1171
 .951 .0113

MACH (1) = 2.499 ALPHA (4) = -1.880 PTO = 2514.000 PO = 136.000 R/PT = 3.927 Q = 993.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .080 .1747 .1975 .3320
 .290 -.0899
 .400 -.1094
 .419 -.1100
 .590 -.1433 -.1393 -.1035
 .600
 .700 -.1592
 .725 -.1470
 .808 -.0813
 .850 -.1153
 .900 -.0764 -.1315
 .951 -.0080

MACH (1) = 2.499 ALPHA (5) = .180 PTO = 2514.000 PO = 136.000 R/PT = 3.927 Q = 993.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .090 .1412 .2054 .3025
 .290 -.1068
 .400 -.1276
 .419 -.1316
 .590 -.1379 -.1375



DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURE)

PAGE 5

ANES P7-710 1A12C ON T1 S1 UPPER WING PRESSURE (UBZ031)

WCOH (1) = 2.499 ALPHA (5) = .190

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B .4270 .5340 .6750 .8870

X/C

.000 .0000
 .700 .0000
 .725 .0000
 .700 .0000
 .725 .0000
 .700 .0000
 .725 .0000
 .700 .0000
 .725 .0000

WCOH (1) = 2.499 ALPHA (6) = 2.180 P70 = 2514.000 P0 = 136.000 R/P7 = 3.927 0 = 993.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B .4270 .5340 .6750 .8870

X/C

.000 .0000 .0000 .2732
 .250 .0000 .0000 .2732
 .400 .0000 .0000 .2732
 .419 .0000 .0000 .2732
 .550 .0000 .0000 .2732
 .600 .0000 .0000 .2732
 .700 .0000 .0000 .2732
 .725 .0000 .0000 .2732
 .800 .0000 .0000 .2732
 .900 .0000 .0000 .2732
 .921 .0000 .0000 .2732

WCOH (1) = 2.499 ALPHA (7) = 4.230 P70 = 2514.000 P0 = 136.000 R/P7 = 3.927 0 = 993.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B .4270 .5340 .6750 .8870

X/C

.000 .0000 .0000 .2440
 .250 .0000 .0000 .2440
 .400 .0000 .0000 .2440
 .419 .0000 .0000 .2440
 .550 .0000 .0000 .2440
 .600 .0000 .0000 .2440
 .700 .0000 .0000 .2440
 .725 .0000 .0000 .2440
 .800 .0000 .0000 .2440
 .900 .0000 .0000 .2440
 .921 .0000 .0000 .2440

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 4

(LBZ031)

AVES 87-710 1A12C 01 T1 S1 UPPER WING PRESSURE

MACH (1) = 2.499 ALPHA (7) = 4.230

SECTION (1) 1108170R WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8070

X/C

.000
.900
.951 -.1081 -.1625 -.1020

MACH (1) = 2.499 ALPHA (8) = 6.230 P70 = 2314.000 P0 = 136.000 R/P7 = 3.927 Q = 993.111

SECTION (1) 1108170R WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8070

X/C

.000
.080
.250
.400
.419
.590
.600
.700
.725
.806
.890
.900
.951
.0807
-.1264
-.1493
-.1741
-.1808
-.1776
-.1693
-.1716
-.1684
-.1692
-.1613
-.1546
-.2229
-.1493
-.1802

MACH (1) = 2.499 ALPHA (9) = 8.200 P70 = 2314.000 P0 = 136.000 R/P7 = 3.927 Q = 993.111

SECTION (1) 1108170R WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8070

X/C

.000
.280
.400
.419
.590
.600
.700
.725
.806
.890
.900
.951
.0709
-.1342
-.1532
-.1659
-.1617
-.1908
-.1747
-.1623
-.1740
-.1625
-.1627
-.1974
-.1532
-.1320

DATE 08 DEC 74

(107034) (10 APR 74)

AMES 87-710 1A12C 01 T1 S1 UPPER WING PRESSURE

REFERENCE DATA

9827 = 2980,0000 50.0°
 9827 = 1328,0000 1N.
 9827 = 1328,0000 1N.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA	=	.000	WPSRA	=	.000
POWER	=	1.000	OPR	=	31.290
STOPR	=	.916	GINBAL	=	1.000
RUDDER	=	.000			

Year	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100																			
Population	1,000,000	1,050,000	1,100,000	1,150,000	1,200,000	1,250,000	1,300,000	1,350,000	1,400,000	1,450,000	1,500,000	1,550,000	1,600,000	1,650,000	1,700,000	1,750,000	1,800,000	1,850,000	1,900,000	1,950,000	2,000,000	2,050,000	2,100,000	2,150,000	2,200,000	2,250,000	2,300,000	2,350,000	2,400,000	2,450,000	2,500,000	2,550,000	2,600,000	2,650,000	2,700,000	2,750,000	2,800,000	2,850,000	2,900,000	2,950,000	3,000,000	3,050,000	3,100,000	3,150,000	3,200,000	3,250,000	3,300,000	3,350,000	3,400,000	3,450,000	3,500,000	3,550,000	3,600,000	3,650,000	3,700,000	3,750,000	3,800,000	3,850,000	3,900,000	3,950,000	4,000,000	4,050,000	4,100,000	4,150,000	4,200,000	4,250,000	4,300,000	4,350,000	4,400,000	4,450,000	4,500,000	4,550,000	4,600,000	4,650,000	4,700,000	4,750,000	4,800,000	4,850,000	4,900,000	4,950,000	5,000,000	5,050,000	5,100,000	5,150,000	5,200,000	5,250,000	5,300,000	5,350,000	5,400,000	5,450,000	5,500,000	5,550,000	5,600,000	5,650,000	5,700,000	5,750,000	5,800,000	5,850,000	5,900,000	5,950,000	6,000,000	6,050,000	6,100,000	6,150,000	6,200,000	6,250,000	6,300,000	6,350,000	6,400,000	6,450,000	6,500,000	6,550,000	6,600,000	6,650,000	6,700,000	6,750,000	6,800,000	6,850,000	6,900,000	6,950,000	7,000,000	7,050,000	7,100,000	7,150,000	7,200,000	7,250,000	7,300,000	7,350,000	7,400,000	7,450,000	7,500,000	7,550,000	7,600,000	7,650,000	7,700,000	7,750,000	7,800,000	7,850,000	7,900,000	7,950,000	8,000,000	8,050,000	8,100,000	8,150,000	8,200,000	8,250,000	8,300,000	8,350,000	8,400,000	8,450,000	8,500,000	8,550,000	8,600,000	8,650,000	8,700,000	8,750,000	8,800,000	8,850,000	8,900,000	8,950,000	9,000,000	9,050,000	9,100,000	9,150,000	9,200,000	9,250,000	9,300,000	9,350,000	9,400,000	9,450,000

SECTION / UNLIMITED WING	DEPENDENT VARIABLE OF
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4	4
5	5
6	6
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94	94
95	95
96	96
97	97
98	98
99	99
100	100

✓
-4870
.5340
.6790
.9670

K/C	1966	1967	1968
.080	.0028	.0027	.0070
.250	.0048		
.400		-.0536	
.419	-.0342		
.590		-.0804	
.600			-.0888
.700		-.1177	
.723	-.1082		
.808	-.0175		
.900		-.1088	
.921			-.0690
	.0364		

$\mu_{\text{SW}} = 0.000$ $\mu_{\text{SW}}(2) = -0.000$ $\text{PTO} = 2512.333$ $\text{PO} = 135.007$ $\text{R/7} = 2.409$ $\text{Q} = 392.350$

DEPENDENT VARIABLE OF

SECRET

K/C					
.080	.2372	.2697	.3597		
.250	-.0297				
.400		-.0632			
.419	-.0668				
.590	-.1097	-.1097			
.600			-.0618		
.700		-.1346			
.723	-.1219				
.108	-.0480				
.650					
.900	-.0423	-.1294			
.951	.0276			-.1045	

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 6

AMES 87-710 1A12C OF T1 S1 UPPER WING PRESSURE (LB/IN²)

WING (1) = 2.499 ALPHA (3) = -3.870 PTO = 2312.333 PO = 135.667 R/F1 = 2.405 Q = 592.956

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/E .4270 .9340 .6750 .6670

X/C

.290 .1971 .2354 .3542
 .290 -.0604
 .400 -.1069
 .419 -.0661
 .590 -.1233 -.1313
 .600 -.1900
 .700 -.1592
 .725 -.0632
 .806 -.1490
 .890 -.0657
 .900 -.1192
 .951 .0060

WING (1) = 2.499 ALPHA (4) = -1.890 PTO = 2312.333 PO = 135.667 R/F1 = 2.405 Q = 592.956

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/E .4270 .9340 .6750 .6670

X/C

.090 .1714 .1947 .3236
 .290 -.0926
 .400 -.1126
 .413 -.1079
 .590 -.1460 -.1426
 .600 -.1052
 .700 -.1612
 .725 -.1490
 .806 -.0627
 .890 -.1566
 .900 -.0735
 .951 -.0127

WING (1) = 2.499 ALPHA (5) = .130 PTO = 2312.333 PO = 135.667 R/F1 = 2.405 Q = 592.956

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/E .4270 .9340 .6750 .6670

X/C

.090 .1396 .2016 .3016
 .290 -.1106
 .400 -.1300
 .419 -.1266
 .590 -.1592 -.1607



AMES 87-710 1A12C Q1 T1 S1 UPPER WING PRESSURE (LB 2034)

$\text{WACH}(1) = 2.499 \quad \text{ALPHA}(5) = .150$

SECTION (1) ORBITER WING

	.6730	.6870
y. 9	.4270	.5340

X/C	
.600	-.1051
.700	-.1776
.725	-.1604
.808	-.1024
.850	-.1776
.900	-.1012
.951	-.0392
	-.1380

WACH (1) =	2.499	ALPHA (6) =	2.120	PTO	= 2512.333	PO	= 135.667	R/FT	= 2.405	Q	= 592.956
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SECTION (1) ORBITER WING	DEPENDENT VARIABLE CP
1	0.000
2	0.000
3	0.000
4	0.000
5	0.000
6	0.000
7	0.000
8	0.000
9	0.000
10	0.000
11	0.000
12	0.000
13	0.000
14	0.000
15	0.000
16	0.000
17	0.000
18	0.000
19	0.000
20	0.000
21	0.000
22	0.000
23	0.000
24	0.000
25	0.000
26	0.000
27	0.000
28	0.000
29	0.000
30	0.000
31	0.000
32	0.000
33	0.000
34	0.000
35	0.000
36	0.000
37	0.000
38	0.000
39	0.000
40	0.000
41	0.000
42	0.000
43	0.000
44	0.000
45	0.000
46	0.000
47	0.000
48	0.000
49	0.000
50	0.000
51	0.000
52	0.000
53	0.000
54	0.000
55	0.000
56	0.000
57	0.000
58	0.000
59	0.000
60	0.000
61	0.000
62	0.000
63	0.000
64	0.000
65	0.000
66	0.000
67	0.000
68	0.000
69	0.000
70	0.000
71	0.000
72	0.000
73	0.000
74	0.000
75	0.000
76	0.000
77	0.000
78	0.000
79	0.000
80	0.000
81	0.000
82	0.000
83	0.000
84	0.000
85	0.000
86	0.000
87	0.000
88	0.000
89	0.000
90	0.000
91	0.000
92	0.000
93	0.000
94	0.000
95	0.000
96	0.000
97	0.000
98	0.000
99	0.000
100	0.000

Y/B	.4270	.5340	.6720	.8870
1				
2				
3				
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9				
10				
11				
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96				
97				
98				
99				
100				

X/C				
.050	.0944	.1846	.2729	
.25C	-.1197			
.400		-.1411		
.419	-.1405			
.550		-.1733	-.1700	-.1159
.600				
.700			-.1667	
			-.1666	
.606	-.1212			
.650				
.900		-.1377	-.1779	-.1456
.951	-.0731			

WACH (1) =	2.499	ALPHA (7) =	4.110	PTD	= 2512.533	PO	= 135.667	RFT	= 2.405	Q	= 592.556
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ORBITER WING SECTION (1)	DEPENDENT VARIABLE CP
1	0.000
2	0.000
3	0.000
4	0.000
5	0.000
6	0.000
7	0.000
8	0.000
9	0.000
10	0.000
11	0.000
12	0.000
13	0.000
14	0.000
15	0.000
16	0.000
17	0.000
18	0.000
19	0.000
20	0.000
21	0.000
22	0.000
23	0.000
24	0.000
25	0.000
26	0.000
27	0.000
28	0.000
29	0.000
30	0.000
31	0.000
32	0.000
33	0.000
34	0.000
35	0.000
36	0.000
37	0.000
38	0.000
39	0.000
40	0.000
41	0.000
42	0.000
43	0.000
44	0.000
45	0.000
46	0.000
47	0.000
48	0.000
49	0.000
50	0.000
51	0.000
52	0.000
53	0.000
54	0.000
55	0.000
56	0.000
57	0.000
58	0.000
59	0.000
60	0.000
61	0.000
62	0.000
63	0.000
64	0.000
65	0.000
66	0.000
67	0.000
68	0.000
69	0.000
70	0.000
71	0.000
72	0.000
73	0.000
74	0.000
75	0.000
76	0.000
77	0.000
78	0.000
79	0.000
80	0.000
81	0.000
82	0.000
83	0.000
84	0.000
85	0.000
86	0.000
87	0.000
88	0.000
89	0.000
90	0.000
91	0.000
92	0.000
93	0.000
94	0.000
95	0.000
96	0.000
97	0.000
98	0.000
99	0.000
100	0.000

Y/B	.4270	.5340	.6730	.6870
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X/C	.090	.1032	.1633	.2477
	.290	-.1266		
.400			-.1467	
.419	-.1536			
.550		-.1819	-.1745	
.600				-.1224
.700			-.1903	
		-.1755		
.806	-.1393			
.850				-.1766

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURES)

PAGE 5

AMES 87-710 1A12C OF T1 31 UPPER WING PRESSURE (LB/2034)

MACH (1) = 2.499 ALPHA (7) = 4.110

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.900 -.1640 -.1533
.951 -.0986

MACH (1) = 2.499 ALPHA (8) = 6.150 PTO = 2512.333 PO = 135.667 R/PT = 2.405 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .0680 .1440 .2234
.290 -.1317 -.1516
.400
.419 -.1649
.550 -.1836 -.1803 -.1270
.600
.700 -.1920
.725 -.1731
.806 -.1708
.850 -.1724
.900 -.1633 -.1579
.951 -.1396

MACH (1) = 2.499 ALPHA (9) = 8.170 PTO = 2512.333 PO = 135.667 R/PT = 2.405 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .0780 .1256 .1976
.290 -.1354
.400 -.1563
.419 -.1693
.550 -.1667 -.1651 -.1327
.600
.700 -.1913
.725 -.1744
.806 -.1634
.850 -.1768
.900 -.1646 -.1640
.951 -.1641

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURES

PAGE 9

AVES 87 710 1A12C ON T1 S1 UPPER WING PRESSURE

(UB2035) (16 APR 74)

REFERENCE DATA

SPRT = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
 LREF = 1326.0000 IN. YMRP = .0000 IN.
 BREF = 1326.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MPSSA = .000
 POWER = 1.000 CRR = 14.720
 STWPR = .429 G1MBAL = 1.000
 RUDDER = .000

MACH (1) = 2.499 ALPHA (1) = -7.860 PTO = 2192.000 PO = 128.667 R/PT = 2.974 Q = 562.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .2616 .3468 .3957
 .290 .0044
 .400 -.0541
 .419 -.0410
 .590 -.0866 -.0915
 .600 -.0855
 .700 -.1199
 .725 -.1067
 .806 -.0202
 .850 -.1115
 .900 -.0184
 .951 .0627

MACH (1) =

2.499

ALPHA (2) =

-5.880

PTO =

2192.000

PO =

128.667

R/PT =

2.974

Q =

562.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .2344 .2926 .3582
 .290 -.0263
 .400 -.0646
 .419 -.0674
 .590 -.1065 -.1119
 .600 -.0608
 .700 -.1365
 .725 -.1253
 .806 -.0436
 .850 -.1309
 .900 -.0450
 .951 .0305



(LB 2035)

AMES 87-710 1A12C OL T1 S1 UPPER WING PRESSURE

MACH (1) = 2.499 ALPHA (3) = -3.860 PTO = 2192.000 PO = 128.667 R/PT = 2.974 Q = 562.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.050 .1968 .2344 .3479
 .250 -.0601
 .400 -.1048
 .419 -.0695
 .550 -.1301 -.1311 -.0927
 .600
 .700 -.1497
 .725 -.1399
 .806 -.0647
 .850 -.1462
 .900 -.0664 -.1225
 .951 .0051

MACH (1) = 2.499 ALPHA (4) = -1.860 PTO = 2192.000 PO = 128.667 R/PT = 2.974 Q = 562.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.050 .1715 .1927 .3269
 .250 -.0924
 .400 -.1146
 .419 -.1106
 .550 -.1469 -.1456 -.1045
 .600
 .700 -.1642
 .725 -.1926
 .806 -.0646
 .850 -.1617
 .900 -.0645 -.1348
 .951 -.0141

MACH (1) = 2.499 ALPHA (5) = .160 PTO = 2192.000 PO = 128.667 R/PT = 2.974 Q = 562.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.050 .1389 .2003 .2965
 .250 -.1097
 .400 -.1314
 .419 -.1295
 .550 -.1608 -.1612

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/2035)

AVES 67-710 1A12C OR T1 S1 UPPER WING PRESSURE

MACH (1) = 2.499 ALPHA (5) = .160

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
.600 -.1052
.700 -.1798
.725 -.1634
.806 -.1047
.850 -.1803
.900 -.1039
.951 -.1386
-.0410

MACH (1) = 2.499 ALPHA (6) = 2.150 PTO = 2192.000 PO = 128.687 R/PT = 2.974 Q = 562.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
.050 .0930 .1833 .2703
.250 -.1166
.400 -.1413
.419 -.1450
.350 -.1724
.600 -.1146
.700 -.1863
.725 -.1706
.806 -.1244
.850 -.1600
.900 -.1433
.951 -.1482
-.0774

MACH (1) = 2.499 ALPHA (7) = 4.180 PTO = 2192.000 PO = 128.687 R/PT = 2.974 Q = 562.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
.050 .1031 .1621 .2495
.250 -.1298
.400 -.1463
.419 -.1606
.350 -.1833
.600 -.1731
.700 -.1182
.725 -.1907
.806 -.1751
.850 -.1424
.900 -.1794
-.1794

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 07-710 1A12C CL TL SI UPPER WING PRESSURE (LB/2035)

MACH (1) = 2.499 ALPHA (7) = 4.160

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .6670

X/C
.900 -.1670 -.1927
.951 -.1026

MACH (1) = 2.499 ALPHA (8) = 6.170 PTO = 2192.000 PO = 128.667 R/PT = 2.974 Q = 562.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .6670

X/C
.090 .0676 .0011 .2210
.290 -.1303
.400 -.1526
.419 -.1717
.590 -.1841 -.1624 -.1209
.700 -.1927
.725 -.1753
.806 -.1729
.850 -.1753
.900 -.1677 -.1595
.951 -.1419

MACH (1) = 2.499 ALPHA (9) = 8.190 PTO = 2192.000 PO = 128.667 R/PT = 2.974 Q = 562.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .6670

X/C
.090 .0744 .1233 .1944
.290 -.1346
.400 -.1569
.419 -.1763
.590 -.1868 -.1669 -.1335
.700 -.1937
.725 -.1768
.806 -.1858
.850 -.1606
.900 -.1647
.951 -.1669



AVES 87-710 1A12C ON TI SI UPPER WING PRESSURE (USZ037) (16 APR 74)

REFERENCE DATA

WING = 2090.0000 SQ.FT. WARP = 953.0000 IN.
 YWARP = 1328.0000 IN. YWARP = .0000 IN.
 ZWARP = 1328.0000 IN. ZWARP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 WPSRA = .000
 POWER = .000 GIMBAL = 1.000
 RUDDER = .000

MAC (1) = 2.499 ALPHA (1) = -7.890 PTO = 2310.667 PO = 135.667 R/PT = 3.950 Q = 592.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/C .4270 .5340 .6750 .8870

Y/C
 .090 .2794 .3464 .3928
 .290 .0017
 .400 -.0561
 .419 -.0435
 .550 -.0663 -.0928
 .600 -.0864
 .700 -.1201
 .725 -.1076
 .806 -.0810
 .850 -.1112
 .900 -.0195
 .951 .0826

MAC (1) = 2.499 ALPHA (2) = -5.850 PTO = 2310.667 PO = 135.667 R/PT = 3.950 Q = 592.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/C .4270 .5340 .6750 .8870

Y/C
 .090 .2339 .2965 .3582
 .290 -.0262
 .400 -.0660
 .419 -.0696
 .550 -.1087 -.1131
 .600 -.0829
 .700 -.1378
 .725 -.1279
 .806 -.0433
 .850 -.1320
 .900 -.0472
 .951 .0288

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-710 1A12C Q1 T1 S1 UPPER WING PRESSURE (LB/2037)

MAC (1) = 2.499 ALPHA (3) = -3.810 PTO = 2310.667 PO = 135.667 R/PT = 3.930 Q = 592.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/E	.4270	.5340	.6730	.8670
X/C				
.050		.1975	.2317	.3537
.250		-.0603		
.400			-.1081	
.419	-.0912			
.550		-.1317	-.1327	-.0908
.600			-.1503	
.700			-.1433	
.725		-.0641		
.808			-.1467	
.850				-.1177
.900		-.0660		
.951	.0039			

MAC (1) = 2.499 ALPHA (4) = -1.820 PTO = 2310.667 PO = 135.667 R/PT = 3.930 Q = 592.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/E	.4270	.5340	.6730	.8670
X/C				
.050		.1703	.1917	.3285
.250		-.0943		
.400			-.1180	
.419	-.1137			
.550		-.1497	-.1475	-.1057
.600			-.1656	
.700		-.1553		
.725		-.0664		
.808			-.1606	
.850		-.0855		-.1336
.900				
.951	-.0162			

MAC (1) = 2.499 ALPHA (5) = .160 PTO = 2310.667 PO = 135.667 R/PT = 3.930 Q = 592.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/E	.4270	.5340	.6730	.8670
X/C				
.050		.1377	.2003	.2971
.250		-.1125		
.400			-.1352	
.419	-.1341			
.550		-.1626	-.1632	



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-710 1A12C ON TI SI UPPER WING PRESSURE (US 2037)

MACH (1) = 2.499 ALPHA (5) = .180

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .6870

X/C
.600 -.1091
.700 -.1799
.725 -.1663
.806 -.1053
.850 -.1802
.900 -.1047
.951 -.1412
-.0423

MACH (1) = 2.499 ALPHA (6) = 2.190 PTO = 2510.667 PO = 135.667 R/PT = 3.930 Q = 992.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .6870

X/C
.050 .0927 .1634 .2709
.250 -.1178
.400 -.1430
.419 -.1496
.550 -.1753
.600 -.1732
.700 -.1690
.725 -.1739
.806 -.1290
.850 -.1616
.900 -.1416
.951 -.1450
-.0780

MACH (1) = 2.499 ALPHA (7) = 4.180 PTO = 2510.667 PO = 135.667 R/PT = 3.930 Q = 992.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .6870

X/C
.050 .1035 .1611 .2469
.250 -.1300
.400 -.1488
.419 -.1652
.550 -.1632
.600 -.1766
.700 -.1914
.725 -.1790
.806 -.1420
.850 -.1811

(LB 2037)

AMES 87-710 1A12C ON TI S1 UPPER WING PRESSURE

MACH (1) = 2.498 ALPHA (7) = 4.180

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.900 -.1677 -.1546
.951 -.1029

MACH (1) = 2.499 ALPHA (8) = 6.190 PTO = 2310.667 PO = 135.667 R/PT = 3.930 Q = 592.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.050 .0661 .1426 .2235
.250 -.1312
.400 -.1533
.419 -.1779
.550 -.1237 -.1619
.600 -.1263
.700 -.1929
.725 -.1763
.850 -.1724
.900 -.1747
.951 -.1656 -.1975

MACH (1) = 2.499 ALPHA (9) = 7.180 PTO = 2310.667 PO = 135.667 R/PT = 3.930 Q = 592.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.050 .0661 .1340 .2103
.250 -.1325
.400 -.1593
.419 -.1806
.550 -.1656 -.1643
.600 -.1307
.700 -.1943
.725 -.1776
.850 -.1804
.900 -.1752
.951 -.1675 -.1607

AVES 87-71C 1A12C OF T1 S1 UPPER WING PRESSURE (LB/203S) (16 APR 74)

REFERENCE DATA

REF = 2086.0000 SQ.FT. WREF = 953.0000 IN.
 LREF = 1328.0000 IN. WREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MP5RA = .000
 POWER = .000 G1MEAL = 1.000
 RUDDER = .000

MACH (1) = 3.002 ALPHA (1) = -7.690 PTO = 2309.000 PO = 63.000 R/PT = 3.101 Q = 399.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B	.4270	.5340	.6750	.6870
X/C				
.080	.8633	.3532	.3919	
.290	.0122			
.400		-.0335		
.419	-.0341			
.590		-.0654	-.0701	
.600				-.0077
.700			-.0917	
.725		-.0649		
.806	-.0345		-.0931	
.890		-.0472		-.0575
.900				
.951	.0156			

MACH (1) = 3.002 ALPHA (2) = -5.900 PTO = 2309.000 PO = 63.000 R/PT = 3.101 Q = 399.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B	.4270	.5340	.6750	.6870
X/C				
.080	.2509	.3161	.3540	
.290	-.0122			
.400		-.0501		
.419	-.0666			
.590		-.0612	-.0674	
.600				-.0169
.700			-.1081	
.725		-.0674		
.806	-.0321			
.890		-.1079		
.900				-.0661
.951	-.0066			

CASE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-210 1A12C ON T1 S1 UPPER WING PRESSURE (LB/2035)

MACO (1) = 3.002 ALPHA (3) = -3.000 PTO = 2509.000 PO = 63.000 R/FT = 3.101 Q = 399.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .080 .1904 .2563 .3656
 .290 -.0291
 .400 -.0826
 .419 -.0763
 .590 -.0945 -.0963 -.0225
 .600
 .720 -.1161
 .725 -.1076
 .808 -.0707
 .890 -.1165
 .900 -.0877 -.0721
 .951 -.0502

MACO (1) = 3.002 ALPHA (4) = -1.880 PTO = 2509.000 PO = 63.000 R/FT = 3.101 Q = 399.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .080 .1725 .2531 .3401
 .290 -.0449
 .400 -.0696
 .419 -.0916
 .590 -.1059 -.1042 -.0336
 .600
 .720 -.1216
 .725 -.1190
 .808 -.0891
 .890 -.1233
 .900 -.1039 -.0864
 .951 -.0903

MACO (1) = 3.002 ALPHA (5) = .140 PTO = 2509.000 PO = 63.000 R/FT = 3.101 Q = 399.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .080 .1509 .2128 .3182
 .290 -.0900
 .400 -.0737
 .419 -.1031
 .590 -.1121 -.1118



AMES 27-710 1A120 ON THE UPPER WING PRESSURE (UB238A)

MACH (1) = 3.002 ALPHA (2) = .140

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.600			-.0394
.700			-.1280
.725			-.1161
.808			-.0998
.850			-.1209
.900			-.1100
.951			-.0911
			-.0875

MACH (1) = 3.002 ALPHA (6) = 2.140 PTO = 2509.000 NO = 63.000 R/FT = 3.101 Q = 999.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.09C			.1156	.1905	.2900
.250			-.0875		
.400				-.0845	
.419			-.1164		
.550			-.1214	-.1204	
.600				-.0452	
.700			-.1219	-.1362	
.725			-.1142		
.808				-.1330	
.850			-.1211	-.0990	
.900					
.951			-.0803		

MACH (1) = 3.002 ALPHA (7) = 4.130 PTO = 2509.000 PO = 63.000 R/FT = 3.101 Q = 999.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.050			.1008	.1762	.2711
.250			-.0758		
.400				-.0874	
.419			-.1236		
.550			-.1264	-.1251	
.600				-.0903	
.700				-.1367	
.725			-.1265		
.808			-.1290		
.850				-.1555	

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-710 1A12C OI T1 S1 UPPER WING PRESSURE (P.2038)

MACH (1) = 3.002 ALPHA (7) = 4.130

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.900 -.1301 -.1041
.951 -.1099

MACH (1) = 3.002 ALPHA (8) = 6.150 PTO = 2309.000 PO = 63.000 R/PT = 3.101 Q = 399.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .1075 .1553 .2408
.250 -.0722
.400 -.0906
.419 -.1333
.550 -.1275 -.1255
.600 -.0559
.700 -.1369
.725 -.1255
.806 -.1347
.850 -.1341
.900 -.1323
.951 -.1318

MACH (1) = 3.002 ALPHA (9) = 8.150 PTO = 2309.000 PO = 63.000 R/PT = 3.101 Q = 399.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .0952 .1360 .2183
.250 -.0747
.400 -.0953
.419 -.1322
.550 -.1266 -.1308
.600
.700 -.1394
.725 -.1247
.806 -.1343
.850 -.1369
.900 -.1337
.951 -.1264



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DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-710 1A12C 01 T1 S1 UPPER WING PRESSURE (US2041) (10 APR 74)

REFERENCE DATA

REF = 2880.0000 30. FT. YARP = 923.0000 IN.
 LREF = 1326.0000 IN. YARP = .0000 IN.
 BREF = 1326.0000 IN. ZARP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MPRA = .000
 POWER = 1.000 CPR = 26.000
 SPPR = .766 GIMBAL = 1.000
 RUDDER = .000

MACH (1) = 3.002 ALPHA (1) = -7.690 PTO = 2276.596 PO = 61.667 R/PY = 1.952 Q = 369.667

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.060 .2692 .3454 .3670
 .250 .0155
 .400 -.0344
 .419 -.0503
 .590 -.0631 -.0715 -.0127
 .600
 .700 -.0932
 .725 -.0606
 .806 -.0339
 .850 -.0692
 .900 -.0479 -.0615
 .931 .0196

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.060 .2323 .3166 .3500
 .250 -.0090
 .400 -.0466
 .419 -.0606
 .590 -.0606 -.0676 -.0623
 .600
 .700 -.1099
 .725 -.0606
 .806 -.0630
 .850 -.1076
 .900 -.0665 -.0716
 .931 -.0667

AMES 87-710 1A12C OI T1 S1 UPPER WING PRESSURE (LB/2041)

MACH (1) = 3.002 ALPHA (3) = -3.900 PTO = 2276.556 PO = 61.667 R/FT = 1.952 Q = 369.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.080	.8002	.2372	.3593
.250	-.0303		
.400		-.0820	
.419	-.0656		
.550	-.0943	-.0977	-.0297
.600			
.700		-.1163	
.725	-.0995		
.806	-.0710		
.850		-.1170	
.900	-.0875		-.0604
.951	-.0592		

MACH (1) = 3.002 ALPHA (4) = -1.920 PTO = 2276.556 PO = 61.667 R/FT = 1.952 Q = 369.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.080	.1716	.2044	.3526
.250	-.0445		
.400		-.0953	
.419	-.0601		
.550	-.1091	-.1045	-.0404
.600			
.700		-.1219	
.725	-.1045		
.806	-.0691		
.850		-.1237	
.900	-.1016		-.0919
.951	-.0507		

MACH (1) = 3.002 ALPHA (5) = .080 PTO = 2276.556 PO = 61.667 R/FT = 1.952 Q = 369.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.080	.1497	.2099	.3126
.250	-.0596		
.400		-.0796	
.419	-.0693		
.550		-.1129	-.1134



DATE OF DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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(US2041)

AMES 87-710 1A12C O1 T1 S1 UPPER WING PRESSURE

MACH (1) = 3.002 ALPHA (5) = .090

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.800 .0437
 .700 -.1297
 .725 -.1087
 .608 -.1008
 .850 -.1283
 .900 -.1090
 .921 -.0871
 .0906

MACH (1) = 3.002 ALPHA (6) = 2.090 PTO = 2276.556 PO = 61.667 R/PT = 1.992 Q = 369.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 .1136 .1919 .2650
 .250 -.0866
 .400 -.0859
 .419 -.0873
 .900 -.1216
 .600 -.1803
 .700 -.1356
 .725 -.1113
 .808 -.1108
 .850 -.1300
 .900 -.1167
 .921 -.0866
 -.1046

MACH (1) = 3.002 ALPHA (7) = 4.110 PTO = 2276.556 PO = 61.667 R/PT = 1.992 Q = 369.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 .0801 .1765 .2673
 .250 -.0792
 .400 -.0801
 .419 -.1080
 .900 -.1265
 .600 -.1282
 .700 -.1360
 .725 -.1119
 .808 -.1256
 .850 -.1354

AMES 87-710 1A12C O1 T1 S1 UPPER WING PRESSURE (LB/2041)

MACH (1) = 3.002 ALPHA (7) = 4.110

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.900 -.1233 -.1082
.951 -.1088

MACH (1) = 3.002 ALPHA (8) = 6.080 PTO = 2276.596 PO = 61.667 R/PT = 1.952 Q = 369.667

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.080 .1066 .1549 .2382
.250 -.0712
.400 -.0916
.419 -.1082
.590 -.1262 -.1261 -.0826
.600
.700 -.1367
.723 -.1141
.806 -.1306
.830 -.1359
.900 -.1266 -.1143
.951 -.1247

MACH (1) = 3.002 ALPHA (9) = 8.100 PTO = 2276.596 PO = 61.667 R/PT = 1.952 Q = 369.667

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.080 .0857 .1351 .2135
.250 -.0757
.400 -.0962
.419 -.1093
.590 -.1299 -.1321 -.0869
.600
.700 -.1376
.723 -.1153
.806 -.1306
.830 -.1375
.900 -.1285 -.1202
.951 -.1218

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(UBZ042) (16 APR 74)

AVES 87-710 1A12C O1 T1 S1 UPPER WING PRESSURE

PARAMETRIC DATA

BETA = .000 MPRA = .000
POWER = 1.000 CTR = 14.400
SNMPR = .412 GIMBAL = 1.000
RUDDER = .000

REFERENCE DATA

WREF = 2890.0000 SQ.FT. WARP = 953.0000 IN.
REF = 1328.0000 IN. WARP = .0000 IN.
REF = 1328.0000 IN. WARP = 400.0000 IN.
SCALE = .0190 SCALE

WACH (1) = 3.002 ALPHA (1) = -8.190 PTO = 2170.333 PO = 59.000 R/T = 2.303 Q = 371.556

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

X/C .4270 .5340 .6750 .6870

X/C

.090 .2662 .3564 .3685
.290 .0160
.400 -.0510
.419 -.0328
.590 -.0632 -.0691
.600 -.0096
.700 -.0922
.725 -.0605
.806 -.0390
.850 -.0934
.900 -.0447
.951 .0165

WACH (1) = 3.002 ALPHA (2) = -8.690 PTO = 2170.333 PO = 59.000 R/T = 2.303 Q = 371.556

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

X/C .4270 .5340 .6750 .6870

X/C

.090 .2301 .3136 .3474
.290 -.0123
.400 -.0496
.419 -.0366
.590 -.0638 -.0681
.600 -.0005
.700 -.1075
.725 -.0657
.806 -.0536
.850 -.1095
.900 -.0678
.951 -.0066



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LBZ042)

WACH (1) = 3.002 ALPHA (3) = -3.880 PTO = 2170.333 PO = 59.000 R/P/T = 2.303 Q = 371.556

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.090 .1974 .2551 .3574
 .250 -.0514
 .400 -.0620
 .419 -.0703
 .550 -.0682 -.0594
 .600 -.0290
 .700 -.1169
 .725 -.1059
 .806 -.0726
 .850 -.1173
 .900 -.0806
 .951 -.0809
 -.0541

WACH (1) = 3.002 ALPHA (4) = -1.870 PTO = 2170.333 PO = 59.000 R/P/T = 2.303 Q = 371.556

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.090 .1729 .2005 .3346
 .250 -.0430
 .400 -.0671
 .419 -.0815
 .550 -.1045 -.1042
 .600 -.0366
 .700 -.1233
 .725 -.1068
 .806 -.0873
 .850 -.1249
 .900 -.1046
 .951 -.0921
 -.0514

WACH (1) = 3.002 ALPHA (5) = .110 PTO = 2170.333 PO = 59.000 R/P/T = 2.303 Q = 371.556

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.090 .1461 .2109 .3117
 .250 -.0807
 .400 -.0745
 .419 -.0859
 .550 -.1141 -.1125
 .600



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AVES 87-710 1A12C ON T1 S1 UPPER WING PRESSURE (LB/2042)

MACH (1) = 3.002 ALPHA (5) = .110

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .6870

X/C
 .600 -.0430
 .700 -.1295
 .725 -.1127
 .808 -.1012
 .850 -.1291
 .900 -.1108
 .951 -.0999
 .951 -.0710

MACH (1) = 3.002 ALPHA (6) = 2.100 PTO = 2170.333 PO = 59.000 R/PT = 2.303 Q = 371.596

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .6870

X/C
 .090 .1169 .1937 .2852
 .250 -.0655
 .400 -.0809
 .419 -.0999
 .550 -.1190
 .600 -.1199
 .700 -.1352
 .725 -.1122
 .808 -.1114
 .850 -.1325
 .900 -.1176
 .951 -.1028
 .951 -.0884

MACH (1) = 3.002 ALPHA (7) = 4.120 PTO = 2170.333 PO = 59.000 R/PT = 2.303 Q = 371.596

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .6870

X/C
 .090 .1001 .1779 .2669
 .250 -.0698
 .400 -.0659
 .419 -.1080
 .550 -.1240
 .600 -.1241
 .700 -.1386
 .725 -.1165
 .808 -.1221
 .850 -.1344

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-710 1A12C O1 T1 S1 UPPER WING PRESSURE (UB 2042)

MACH (1) = 3.002 ALPHA (7) = 4.120
 SECTION (1) ORBITER WING DEPENDENT VARIABLE CP
 Y/B .4270 .5340 .6750 .6670
 X/C
 .800 -.1264 -.1094
 .951 -.1066

MACH (1) = 3.002 ALPHA (8) = 6.120 PTO = 2170.333 PO = 59.000 R/PT = 2.303 Q = 371.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .6670

X/C
 .080 .1064 .1536 .2369
 .290 -.0705 -.0916
 .400
 .419 -.1132 -.1262 -.1271 -.0808
 .590
 .600
 .700
 .725 -.1191
 .806 -.1320
 .890 -.1352
 .900 -.1313
 .951 -.1290

MACH (1) = 3.002 ALPHA (9) = 8.060 PTO = 2170.333 PO = 59.000 R/PT = 2.303 Q = 371.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .6670

X/C
 .090 .0920 .1370 .2146
 .290 -.0760
 .400 -.0932
 .419 -.1164
 .590 -.1290 -.1310
 .600 -.0874
 .700 -.1366
 .725 -.1186
 .806 -.1313
 .890 -.1375
 .900 -.1316
 .951 -.1194



DATE 05 DEC 74

(UB2045) (16 APR 74)

TABULATED SOURCE DATA - TABULATED WING PRESSURES

AVES 87-710 1A120 OF T1 S1 UPPER WING PRESSURE

REFERENCE DATA

SREF = 8890.0000 SQ.FT. XREF = 943.0000 IN.
 LREF = 1326.0000 IN. YREF = .0000 IN.
 BREF = 1326.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MPSRA = .000
 POLER = 1.000 OPR = 41.000
 SRMPR = 1.150 GIMBAL = 1.000
 RUDDER = .000

MACH (1) = 3.002 ALPHA (1) = -7.940 PTO = 2439.200 PO = 66.000 R/PT = 1.761 Q = 417.600

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8670

X/C

.090 .2694 .3967 .3911
 .290 .0171
 .400 -.0280
 .419 -.0262
 .590 -.0808 -.0839 -.0130
 .600 -.0867
 .700 -.0740
 .725 -.0500
 .806 -.0667
 .850 -.0595
 .900 -.0592
 .951 .0226

MACH (1) = 3.002 ALPHA (2) = -6.940 PTO = 2439.200 PO = 66.000 R/PT = 1.761 Q = 417.600

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8670

X/C

.090 .2490 .3379 .3720
 .290 .0044
 .400 -.0366
 .419 -.0361
 .590 -.0704 -.0731 -.0148
 .600 -.0938
 .700 -.0819
 .725 -.0563
 .806 -.0945
 .850 -.0627
 .900 -.0491
 .951 .0101

AMES 87-710 (A12C 01 Y1 S1 UPPER WING PRESSURE) (LBZ045)

MACH (1) = 3.002 ALPHA (3) = -5.903 PTO = 2439.200 PO = 66.000 R/PT = 1.761 Q = 417.600

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .6670

X/C

.090 .2311 .5166 .3509
 .290 -.0100
 .400 -.0486
 .419 -.0484
 .590 -.0772 -.0663 -.0233
 .600
 .700
 .723 -.0690
 .806 -.0490
 .890 -.1056
 .900 -.0615 -.0700
 .951 -.0032

MACH (1) = 3.002 ALPHA (4) = -3.920 PTO = 2439.200 PO = 66.000 R/PT = 1.761 Q = 417.600

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .6670

X/C

.090 .2017 .2616 .3421
 .290 -.0299
 .400 -.0566
 .419 -.0824
 .590 -.0913 -.0940 -.0269
 .600
 .700
 .723 -.0961
 .806 -.0679
 .890 -.1134
 .900 -.0611 -.0766
 .951 -.0236

MACH (1) = 3.002 ALPHA (5) = -1.960 PTO = 2439.200 PO = 66.000 R/PT = 1.761 Q = 417.600

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .6670

X/C

.090 .1721 .2066 .3376
 .290 -.0427
 .400 -.0664
 .419 -.0730
 .590 -.1022 -.1012



DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/2045)

AMES 87-710 1A12C ON T1 S1 UPPER WING PRESSURE

MACH (1) = 3.002 ALPHA (2) = -1.980

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .600 -.0393
 .700 -.1102
 .725 -.1012
 .808 -.0640
 .890 -.1208
 .900 -.0946
 .951 -.0454

MACH (1) = 3.002 ALPHA (6) = .070 PTO = 2439.200 PO = 66.000 R/PT = 1.761 Q = 417.600

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .080 .1473 .2126 .3154
 .290 -.0937
 .400 -.0736
 .419 -.0821
 .550 -.1109
 .600 -.1093
 .700 -.1249
 .725 -.1046
 .808 -.0667
 .890 -.1232
 .900 -.0952
 .951 -.0811

MACH (1) = 3.002 ALPHA (7) = 2.080 PTO = 2439.200 PO = 66.000 R/PT = 1.761 Q = 417.600

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .080 .1159 .1947 .2974
 .290 -.0877
 .400 -.0627
 .419 -.0823
 .550 -.1106
 .600 -.1171
 .700 -.1308
 .725 -.1048
 .808 -.1068
 .890 -.1246



DATE 08 DEC 74 TABULATED SOURCE DATA - (A1SEC WING PRESSURES)

(LB/IN²)

AMES 87-710 (A1SEC OF T1 S1 UPPER WING PRESSURE)

MACH (1) = 3.002 ALPHA (7) = 2.080

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C	
.000	-.1112
.051	-.0603
	-.1012

MACH (1) = 3.002 ALPHA (8) = 4.070 PTO = 2439.200 PO = 66.000 R/PT = 1.761 Q = 417.600

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C	
.000	.0695
.050	-.0740
.400	-.0690
.419	-.0964
.590	-.1242
.600	-.1219
.700	-.1324
.725	-.1067
.806	-.1187
.890	-.1266
.900	-.1171
.951	-.1051
	-.0579

MACH (1) = 3.002 ALPHA (9) = 6.060 PTO = 2439.200 PO = 66.000 R/PT = 1.761 Q = 417.600

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C	
.000	.1072
.050	-.0729
.400	-.0693
.419	-.1089
.590	-.1274
.600	-.1257
.700	-.1312
.725	-.1080
.806	-.1264
.890	-.1265
.900	-.1195
.951	-.1179
	-.1017



DATE 28 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.002 ALPHA (10) = 6.050 PTC = 2439.200 PO = 66.000 R/R' = 1.761 Q = 417.600
 AYES 87-710 1A12C OF T1 S1 UPPER WING PRESSURE (UB2045)

DEPENDENT VARIABLE C_p

SECTION (1) ON BLTTER WING

Y/B .4270 .5340 .6730 .8070

X/C
 .090 .0901 .1366 .2167
 .250 -.0741
 .400 -.0932
 .419 -.1071
 .550 -.1242 -.1274
 .600 -.0660
 .700 -.1296
 .725 -.1069
 .806 -.1236
 .890 -.1200
 .900 -.1202
 .951 -.1159

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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AVES 87-710 1A12C 01 T1 S1 UPPER WING PRESSURE (US2046) (16 APR 74)

REFERENCE DATA

SRCP = 2880.0000 SQ.FT. XWRP = 953.0000 IN.
 LREF = 1328.0000 IN. YWRP = .0000 IN.
 BRCP = 1328.0000 IN. ZWRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 WFSRA = .000
 POWER = .000 GIMBAL = 1.000
 RUDDER = .000

MACH (1) = 3.499 ALPHA (1) = -7.750 PTO = 2512.222 PO = 30.000 R/A/T = 2.392 Q = 280.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .6870

X/C

.090 .2766 .3570 .4082
 .250 .0404
 .400 .0091
 .419 -.0354
 .590 -.0446 -.0431
 .600 .0379
 .700 -.0676
 .725 -.0871
 .806 -.0430
 .850 -.0731
 .900 -.0589 -.0330
 .951 -.0081

MACH (1) = 3.499 ALPHA (2) = -5.750 PTO = 2512.222 PO = 30.000 R/A/T = 2.392 Q = 280.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .6870

X/C

.090 .2278 .3124 .3665
 .250 .0166
 .400 -.0105
 .419 -.0512
 .590 -.0549 -.0616
 .600 .0221
 .700 -.0796
 .725 -.0709
 .806 -.0644
 .850 -.0623
 .900 -.0676
 .951 -.0299 -.0456



DATE 09 DEC 74

TABULATED SOURCE DATA - (A12C WING PRESSURES)

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MACH (1) = 3.499 ALPHA (5) = -3.740 PTO = 2312.222 PO = 30.000 R/PT = 2.392 Q = 260.000
 (LB/2048)

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.050 .1914 .2647 .3928
 .250 .0021
 .400 -.0213
 .419 -.0804
 .590 -.0651 -.0692 .0211
 .700 -.0856
 .725 -.0774
 .806 -.0826
 .850 -.0872
 .900 -.0790 -.0493
 .951 -.0406

MACH (1) = 3.499 ALPHA (4) = -1.740 PTO = 2312.222 PO = 30.000 R/PT = 2.392 Q = 260.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.050 .1663 .1991 .3581
 .250 -.0081
 .400 -.0306
 .419 -.0708
 .590 -.0736 .0128
 .700 -.0943
 .725 -.0823
 .806 -.0724
 .850 -.0943
 .900 -.0650 -.0992
 .951 -.0571

MACH (1) = 3.499 ALPHA (5) = .270 PTO = 2312.222 PO = 30.000 R/PT = 2.392 Q = 260.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.050 .1430 .2020 .3284
 .250 -.0195
 .400 -.0733
 .419 -.0789
 .550 -.0794 -.0774

MACH (1) = 3.499 ALPHA (5) = .270 (LB/2046)

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.600	.0053
.700	-.0855
.725	-.0881
.806	-.0822
.750	-.0943
.900	-.0699
.951	-.0685

MACH (1) = 3.499 ALPHA (5) = 2.270 PTO = 2512.222 PO = 50.000 R/PT = 2.392 Q = 260.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.090	.1163	.1918	.2827
.250	-.0287		
.400		-.1376	
.419	-.0876		
.550	-.0860	-.0639	
.600			-.0045
.700		-.0975	
.725	-.0872		
.806	-.0931		
.850		-.0975	
.900	-.0937		-.0701
.951	-.0854		

MACH (1) = 3.499 ALPHA (7) = 4.260 PTO = 2512.222 PO = 50.000 R/PT = 2.392 Q = 260.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.090	.1006	.1740	.2795
.250	-.0354		
.400		-.0437	
.419	-.0825		
.550	-.0693	-.0694	
.600			-.0090
.700		-.0997	
.725	-.0899		
.806	-.0936		
.850		-.0997	



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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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(197046)

AMES 87-710 1A12C ON T1 S1 UPPER WING PRESSURE

MACH (1) = 3.499 ALPHA (7) = 4.260

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.900 .1003 -.0745
.951 -.0936

MACH (1) = 3.499 ALPHA (8) = 6.280 PTO = 2312.222 PO = 30.000 R/PT = 2.392 Q = 280.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.090 .1064 .1572 .2510
.250 -.0321
.400 -.0475
.419 -.1002
.550 -.0876 -.0932 -.0186
.600
.700 -.1074
.725 -.0921
.806 -.1016
.850 -.1083
.900 -.1019 -.0799
.951 -.1013

MACH (1) = 3.499 ALPHA (9) = 8.260 PTO = 2312.222 PO = 30.000 R/PT = 2.392 Q = 280.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.090 .0976 .1366 .2142
.290 -.0746
.400 -.0516
.419 -.1002
.550 -.0882 -.0959
.600 -.1032
.700 -.1090
.725 -.0927
.806 -.1016
.850 -.1090
.900 -.1030 -.0821
.951 -.1002

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

DATE 08 DEC 74

(UB2049) (18 APR 74)

AMES 87-710 1A12C 01 T1 S1 UPPER WING PRESSURE

REFERENCE DATA

WREF = 2890.0000 SQ.FT. XREF = 953.0000 IN.
 YREF = 1328.0000 IN. YREF = .0000 IN.
 ZREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PAUIMETRIC DATA

BETA = .000 MPRA = .000
 POWER = 1.000 OPR = 13.170
 SRMPR = .456 GIMBAL = 1.000
 RUDDER = .000

WACH (1) = 3.499 ALPHA (1) = -7.770 PTO = 2175.222 PO = 28.889 R/FT = 1.731 Q = 244.889

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

X/Y .4270 .5340 .6750 .8870

X/C

.050 .2921 .3573 .4121
 .250 .0437
 .400 .0114
 .419 -.0144
 .550 -.0593 -.0426
 .600 .0435
 .700 -.0653
 .725 -.0544
 .808 -.034
 .850 -.0700
 .900 -.0555
 .951 -.0012

WACH (1) = 3.499 ALPHA (2) = -5.750 PTO = 2175.222 PO = 28.889 R/FT = 1.731 Q = 244.889

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

X/Y .4270 .5340 .6750 .8870

X/C

.050 .2290 .3142 .3722
 .250 .0184
 .400 -.0083
 .419 -.0508
 .550 -.0523 -.0575 .0251
 .600 -.0790
 .700 -.0804
 .725 -.0499
 .808 -.0796
 .850 -.0645
 .900 -.0459
 .951 -.0291



DATE 03 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

AMES 67-710 (A12C O1 T1 S1 UPPER WING PRESSURE (UBZ049))
 MACH (1) = 3.499 ALPHA (3) = -3.750 PTC = 2175.222 PO = 28.889 R/PT = 1.731 Q = 244.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .090 .1934 .2664 .3937
 .250 .0038
 .400 -.0189
 .419 -.0401
 .550 -.0821 -.0703 .0227
 .600
 .700 -.0883
 .725 -.0669
 .806 -.0593
 .850 -.0877
 .900 -.0509
 .951 -.0408

MACH (1) = 3.499 ALPHA (4) = -1.750 PTO = 2175.222 PO = 28.889 R/PT = 1.731 Q = 244.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .090 .1669 .1994 .3620
 .250 -.0069
 .400 -.0281
 .419 -.0922
 .550 -.0702 -.0715 .0175
 .600
 .700 -.0900
 .725 -.0703
 .806 -.0702
 .850 -.0829
 .900 -.0819
 .951 -.0575

MACH (1) = 3.499 ALPHA (5) = .250 PTO = 2175.222 PO = 28.889 R/PT = 1.731 Q = 244.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .090 .1456 .2032 .3301
 .250 -.0195
 .400 -.0318
 .419 -.0399
 .550 -.0790 -.0785



AMES 87-710 1A12C O1 T1 S1 UPPER WING PRESSURE (LB/2049)

MACH (1) = 3.499 ALPHA (5) = .230

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.600			.0085
.700		-.0953	
.725	-.0727		
.806	-.0772		
.850		-.0935	
.900		-.0654	-.0609
.951	-.0666		

MACH (1) = 3.499 ALPHA (6) = 2.240 PTO = 2175.222 PO = 28.889 R/PT = 1.731 Q = 244.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090		.1196	.1920	.2901
.250		-.0256		
.400			-.0328	
.419	-.0653			
.550		-.0630	-.0614	
.600			-.0916	.0017
.725		-.0715		
.806	-.0630		-.0935	
.850		-.0669		-.0632
.900				
.951	-.0601			

MACH (1) = 3.499 ALPHA (7) = 4.250 PTO = 2175.222 PO = 28.889 R/PT = 1.731 Q = 244.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090		.1064	.1762	.2679
.250		-.0309		
.400			-.0413	
.419	-.0650			
.550		-.0641	-.0677	
.600				.0023
.725		-.0727	-.0947	
.806	-.0693			
.850			-.0947	



DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES)

(UBZ049)

AMES 87-710 1A12C O1 T1 S1 UPPER WING PRESSURE

MACH (1) = 3.499 ALPHA (7) = 4.250

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.900 -.0929 -.0649
.951 -.0682

MACH (1) = 3.499 ALPHA (8) = 6.250 PTO = 2175.222 PO = 28.889 R/PT = 1.731 Q = 244.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .1149 .1563 .2414
.290 -.0274 -.0449
.400
.419 -.0702 -.0635 -.0908 -.0109
.600
.700 -.0564
.725 -.0752
.806 -.0887 -.0984
.850
.900 -.0989 -.0707
.951 -.0916

MACH (1) = 3.499 ALPHA (9) = 8.240 PTO = 2175.222 PO = 28.889 R/PT = 1.731 Q = 244.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .0949 .1398 .2210
.290 -.0360 -.0459
.400
.419 -.0756 -.0856 -.0678 -.0148
.600
.700 -.0923
.725 -.0731
.806 -.0848 -.0935 -.0694
.850
.900 -.0934
.951 -.0888

(UB 2050) (16 APR 74)

AMES 87-710 1A12C O1 T1 S1 UPPER WING PRESSURE

REFERENCE DATA

REF = 2890.0000 SQ.FT. XREF = 955.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MPSEA = .000
 POLAR = 1.000 CTR = 25.660
 STRPR = .826 GIMBAL = 1.000
 RUDDER = .000

MACH (1) = 3.492 ALPHA (1) = -7.750 PTO = 2505.222 PO = 30.111 R/PT = 1.465 Q = 299.333

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .6870

X/C

.080 .2779 .3581 .4118
 .250 .0407
 .400 .0081
 .419 -.0171
 .550 -.0425 -.0426 .0405
 .600
 .700 -.0669
 .725 -.0534
 .806 -.0587
 .850 -.0729
 .900 -.0540 -.0283
 .951 -.0025

MACH (1) = 3.498 ALPHA (2) = -9.770 PTO = 2505.222 PO = 30.111 R/PT = 1.465 Q = 299.333

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .6870

X/C

.080 .2509 .3165 .3746
 .250 .0192
 .400 -.0097
 .419 -.0284
 .550 -.0525 -.0591 .0277
 .600
 .700 -.0770
 .725 -.0564
 .806 -.0487
 .850 -.0606
 .900 -.0816 -.0414
 .951 -.0231



DATE 05 DEC 74 TABULATED SOURCE DATA - (AIRBORNE PRESSURES)

AM'S 07-710 (AIRS OF T1 S1 UPPER WING PRESSURE) (LB/2050)

WACH (1) = 3.499 ALPHA (3) = -3.760 PTO = 2505.222 PO = 30.111 R/T = 1.465 Q = 259.353

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .6870

X/C

.090 .1928 .2654 .3938
 .290 .0024
 .400 -.0222
 .419 -.0373
 .550 -.0619 -.0713 .0235
 .600
 .700 -.0883
 .725 -.0620
 .808 -.0565
 .850 -.0661
 .900 -.0713 -.0476
 .951 -.0356

WACH (1) = 3.499 ALPHA (4) = -1.760 PTO = 2505.222 PO = 30.111 R/T = 1.465 Q = 259.353

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .6870

X/C

.090 .1668 .2024 .3639
 .290 -.0093
 .400 -.0296
 .419 -.0470
 .550 -.0700 -.0734 .0162
 .600
 .700 -.0920
 .725 -.0630
 .808 -.0676
 .850 -.0662
 .900 -.0761 -.0562
 .951 -.0462

WACH (1) = 3.499 ALPHA (5) = .250 PTO = 2505.222 PO = 30.111 R/T = 1.465 Q = 259.353

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .6870

X/C

.090 .1437 .2068 .3320
 .290 -.0201
 .400 -.0306
 .419 -.0388
 .550 -.0773 -.0763

AMES 87-710 1A12C 21 T1 S1 UPPER WING PRESSURE (LB/2550)

MACH (1) = 3.499 ALPHA (5) = .250

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.800	.0095
.700	-.0916
.725	-.0649
.608	-.0768
.650	-.0699
.900	-.0612
.951	-.0642
	-.0603

MACH (1) = 3.499 ALPHA (6) = 2.220 PTO = 2505.222 PO = 30.111 R/PT = 1.465 Q = 259.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090	.1170	.1908	.2681
.250	-.0268		
.400		-.0400	
.419	-.0969		
.550	-.0815	-.0654	
.600			-.0013
.700		-.0937	
.725	-.0685		
.808	-.0820		
.850		-.0931	
.900	-.0876		-.0644
.951	-.0758		

MACH (1) = 3.499 ALPHA (7) = 4.240 PTO = 2505.222 PO = 30.111 R/PT = 1.465 Q = 259.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090	.0951	.1783	.2899
.250	-.0365		
.400		-.0448	
.419	-.0422		
.550	-.0838	-.0697	
.600			-.0043
.700		-.0903	
.725	-.0869		
.808	-.0842		
.850		-.0914	



DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/2050)

AVES 07-710 1A12C OF T1 S1 UPPER WING PRESSURE

WING (1) = 3.499 ALPHA (P) = 4.240

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

1/2 .4270 .5340 .6750 .8670

1/C
.900 -.0923 -.0861
.951 -.0620

WING (1) = 3.499 ALPHA (S) = 6.210 PTO = 2305.222 PO = 30.111 R/PT = 1.465 Q = 259.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

1/2 .4270 .5340 .6750 .8670

1/C
.080 .1103 .1975 .2423
.270 -.0310 -.0432
.400
.419 -.0866
.590 -.0842 -.0696
.600
.700
.725 -.0717
.806 -.0675
.850 -.0920
.900 -.0947 -.0659
.951 -.0636

WING (1) = 3.499 ALPHA (S) = 6.230 PTO = 2305.222 PO = 30.111 R/PT = 1.465 Q = 259.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

1/2 .4270 .5340 .6750 .8670

1/C
.080 .0954 .1367 .2229
.290 -.0367
.400 -.0496
.419 -.0710
.590 -.0853 -.0637
.600
.700
.725 -.0675
.806 -.0630
.850
.900 -.0914 -.0903
.951 -.0636

DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURE(S)

AMES 87-710 1A12C OF T1 S1 UPPER WING PRESSURE (102053) (10 APR 74)

REFERENCE DATA

WREF = 8990.0000 SQ.FT. WREF = 955.0000 IN.
 LREF = 1328.0000 IN. WREF = .0000 IN.
 BREF = 1328.0000 IN. WREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MPSTA = .000
 POWER = 1.000 CTR = 41.000
 SPMR = 1.150 C1MBAL = 1.000
 RUDDER = .000

MACH (1) = 3.499 ALPHA (1) = -7.790 PTO = 2435.889 PO = 32.000 R/PY = 1.363 Q = 274.111

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.080 .2682 .3993 .4139
 .250 .0404
 .400 .0082
 .419 -.0123
 .590 -.0414 -.0430
 .600 .0414
 .700 -.0659
 .725 -.0283
 .806 -.0363
 .890 -.0893
 .900 -.0513 -.0306
 .951 .0005

MACH (1) = 3.499 ALPHA (2) = -6.800 PTO = 2435.889 PO = 32.000 R/PY = 1.363 Q = 274.111

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.080 .2508 .3187 .3754
 .250 .0193
 .400 -.0082
 .419 -.0283
 .590 -.0517 -.0590
 .600 .0229
 .700 -.0778
 .725 -.0536
 .806 -.0486
 .890 -.0772
 .900 -.0585
 .951 -.0190



DATE 03 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURE)

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MACH (1) = 3.499 ALPHA (5) = -3.750 PTO = 2435.869 PO = 32.000 R/PT = 1.383 Q = 274.111
 (LB/2053)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 .1922 .2743 .3970
 .890 .0045
 .400 -.0199
 .419 -.0348
 .550 -.0807 -.0885 .0198
 .600 -.0830
 .700 -.0561
 .725 -.0855
 .808 -.0815
 .850 -.0854
 .900 -.0802
 .951 -.0307

MACH (1) = 3.499 ALPHA (4) = -1.790 PTO = 2435.869 PO = 32.000 R/PT = 1.383 Q = 274.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 .1698 .2040 .2619
 .890 -.0090
 .400 -.0282
 .419 -.0415
 .550 -.0895 -.0711 .0110
 .600 -.0681
 .700 -.0596
 .725 -.0889
 .808 -.0851
 .850 -.0701
 .900 -.0995
 .951 -.0436

MACH (1) = 3.499 ALPHA (5) = -2.750 PTO = 2435.869 PO = 32.000 R/PT = 1.383 Q = 274.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 .1405 .2042 .3327
 .890 -.0221
 .400 -.1001
 .419 -.0499
 .550 -.0773 -.0774

AMES 87-710 1A12C O1 T1 S1 UPPER WING PRESSURE

.187033)

MACH (1) = 3.499 ALPHA (5) = .250

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.600 .0045
 .700 -.0893
 .725 -.0619
 .806 -.0797
 .850 -.0877
 .900 -.0784
 .951 -.0587
 .9612

MACH (1) = 3.499 ALPHA (6) = 2.200 PTO = 2435.889 PO = 32.000 R/PT = 1.363 Q = 274.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.050 .1123 .1944 .2927
 .250 -.0305
 .400 -.0394
 .419 -.0547
 .550 -.0835
 .600 -.0626
 .700 -.0642
 .725 -.0646
 .806 -.0784
 .850 -.0821
 .900 -.0754
 .951 -.0598
 -.0030
 -.0623

MACH (1) = 3.499 ALPHA (7) = 4.200 PTO = 2435.889 PO = 32.000 R/PT = 1.363 Q = 274.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.050 .0618 .1786 .2854
 .250 -.0365
 .400 -.0433
 .419 -.0592
 .550 -.0614
 .600 -.0641
 .700 -.0672
 .725 -.0640
 .806 -.0614
 .850 -.0636
 -.0089



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TABULATED SOURCE DATA - 1A12C WING PRESSURES

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MACH (1) = 3.499 ALPHA (7) = 4.200
AES 87-710 1A12C Q1 T1 S1 UPPER WING PRESSURE (LB/2053)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.900 -.0851 -.0858
.951 -.0890

MACH (1) = 3.499 ALPHA (8) = 6.200 PTO = 2435.889 PO = 32.000 R/PT = 1.383 Q = 274.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .1072 .1619 .2430
.290 -.0357
.400 -.0473
.419 -.0616
.550 -.0808 -.0825
.600 -.0830
.700 -.0654
.725 -.0870
.808 -.0619
.850 -.0876
.900 -.0820
.951 -.0746

MACH (1) = 3.499 ALPHA (9) = 8.210 PTO = 2435.889 PO = 32.000 R/PT = 1.383 Q = 274.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .0945 .1398 .2217
.290 -.0790
.400 -.0515
.419 -.0683
.550 -.0795 -.0797
.600 -.0817
.700 -.0633
.725 -.0903
.808 -.0638
.850 -.0848
.900 -.0661
.951 -.0790

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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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(LB2054) (16 APR 74)

A1E3 87-710 1A12C O1 T1 S1 UPPER WING PRESSURE

REFERENCE DATA

$SREF = 8690.0000$ SQ.FT. $WARP = 953.0000$ IN.
 $LRP = 1328.0000$ IN. $YMR = .0000$ IN.
 $BRP = 1328.0000$ IN. $ZMR = 400.0000$ IN.
 $SCALE = .0190$ SCALE

PARAMETRIC DATA

$BETA = .000$ $POWER = .000$
 $G1HEAL = 1.000$ $RUDDER = 10.000$

$MACH (1) = 2.499$ $ALPHA (1) = -7.880$ $PTO = 2314.889$ $PO = 130.000$ $R/FT = 3.976$ $Q = 993.222$

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.050 .2818 .3563 .3980
 .250 .0095
 .400 -.0503
 .419 -.0335
 .550 -.0822 -.0656
 .600 -.0635
 .700 -.1136
 .725 -.1016
 .806 -.0151
 .850 -.1082
 .900 -.0138 -.0807
 .951 .0713

$MACH (1) = 2.499$ $ALPHA (2) = -5.890$ $PTO = 2314.889$ $PO = 130.000$ $R/FT = 3.976$ $Q = 993.222$

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.050 .2371 .3004 .3990
 .250 -.0232
 .400 -.0791
 .419 -.0802
 .550 -.1050 -.1081
 .600 -.0787
 .700 -.1309
 .725 -.1211
 .806 -.0560
 .850 -.1245
 .900 -.0385 -.1003
 .951 .0373



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TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

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AVES 87-710 1A120 01 T1 S1 UPPER WING PRESSURE (182054)

MACH (1) = 2.499 ALPHA (3) = -3.860 PTD = 2314.889 PO = 136.000 R/FT = 3.976 Q = 993.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090	.2022	.2406	.3575
.250	-.0550		
.400		-.0997	
.419	-.0834		
.590		-.1252	
.600			-.0864
.700		-.1444	
.725		-.1375	
.806	-.0293		
.850		-.1401	
.900	-.0598		-.1135
.951	.0138		

MACH (1) = 2.499 ALPHA (4) = -1.840 PTD = 2314.889 PO = 136.000 R/FT = 3.976 Q = 993.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090	.1763	.1975	.3352
.250	-.0904		
.400		-.1083	
.419	-.1049		
.590		-.1422	
.600		-.1399	
.700		-.1576	-.1008
.725		-.1470	
.806	-.0796		
.850		-.1547	
.900	-.0763		-.1293
.951	-.0070		

MACH (1) = 2.499 ALPHA (5) = .160 PTD = 2314.889 PO = 136.000 R/FT = 3.976 Q = 993.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090	.1447	.2075	.3045
.250	-.1064		
.400		-.1266	
.419	-.1243		
.590		-.1554	
.600		-.1569	

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TABULATED SOURCE DATA - 1A18C (WING PRESSURES)

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AMES 87-710 1A18C OF T1 S1 UPPER WING PRESSURE

(LB/2054)

MACH (1) = 2.499 ALPHA (7) = 4.180

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
.900 -.1800 -.5947
.951 -.0837

MACH (1) = 2.499 ALPHA (8) = 6.170 PTO = 2314.889 PO = 136.000 R/PT = 3.976 Q = 593.822

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
.080 .0915 .1484 .2252
.250 -.1289
.400 -.1478
.419 -.1635
.550 -.1816 -.1737 -.1224
.600
.700 -.1879
.725 -.1724
.808 -.1680
.850
.900 -.1609 -.1555
.951 -.1355

MACH (1) = 2.499 ALPHA (5) = 8.190 PTO = 2314.889 PO = 136.000 R/PT = 3.976 Q = 593.822

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
.080 .0818 .1278 .1973
.250 -.17
.400 -.1530
.419 -.1663
.550 -.1840 -.1805 -.1303
.600
.700 -.1886
.725 -.1753
.808 -.1788
.850 -.1729 -.1612
.900
.951 -.1592

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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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AVES 07-710 1A12C 01 T1 S1 UPPER WING PRESSURE (UB2057) (16 APR 74)

REFERENCE DATA

REF = 2890.0000 SQ.FT. XMRP = 933.0000 IN.
 LREF = 1326.0000 IN. YMRP = .0000 IN.
 BRP = 1326.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CTR = 31.260 SHMR = .916
 GIMBAL = 1.000 RUDDER = 10.000

MACH (1) = 2.499 ALPHA (1) = -7.890 PTO = 2293.200 PO = 134.600 R/FT = 2.395 Q = 987.600

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .2787 .3493 .3937
 .290 .0054 .0251
 .382 .0992
 .400
 .419 -.0575 -.0517
 .550 -.0651 -.0869
 .600
 .697 -.0305
 .700
 .725 -.1037 -.1170
 .750
 .806 -.0109
 .832 .0296
 .850
 .900 -.0166 -.1064
 .951 .0864
 .966 .0533
 -.0844
 -.1096
 -.0844

MACH (1) = 2.499 ALPHA (2) = -5.880 PTO = 2293.200 PO = 134.600 R/FT = 2.395 Q = 987.600

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .2350 .2984 .3606
 .290 -.0263 .0073
 .382 .0112
 .400
 .419 -.0635 -.0614
 .550 -.1064 -.1065
 .600
 .697 -.0466
 .700
 .725 -.1212 -.1339
 .750
 .806 -.0396
 .832 .0078
 -.1247
 -.0803

A-1E5 87-710 TA12C ON T1 S1 UPPER WING PRESSURE (UB2057)

MACH (1) = 2.499 ALPHA (2) = -5.880

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C	.890	.900	.951	.966
	.0419	-.1269	-.1019	

MACH (1) = 2.499 ALPHA (3) = -3.850 PTO = 2293.200 PO = 134.600 R/FT = 2.355 Q = 587.800

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C	.090	.290	.362	.400	.419	.550	.600	.697	.700	.725	.750	.806	.832	.890	.900	.951	.966
	.2009	-.0374	-.0171	-.1037	-.1266	-.1297	-.0697	-.1481	-.1364	-.1362	-.1442	-.0636	-.1149				

MACH (1) = 2.499 ALPHA (4) = -1.870 PTO = 2293.200 PO = 134.600 R/FT = 2.355 Q = 587.800

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C	.090	.290	.362	.400	.419	.550	.600	.697
	.1739	-.0920	-.0642	-.1121	-.1452	-.1440	-.1026	

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB 2057)

AMES 97-710 1A12C Q1 T1 S1 UPPER WING PRESSURE

MACH (1) = 2.499 ALPHA (4) = -1.870

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.700 -.1621
 .725 -.1474
 .750 -.1539
 .808 -.0812
 .832 -.0414
 .850 -.1583
 .900 -.0802
 .931 -.1302
 .966 .0172

MACH (1) = 2.499 ALPHA (5) = .140 PTO = 2253.800 PO = 134.600 R/PT = 2.355 Q = 587.800

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .1414 .2026 .3009
 .250 -.1094 -.0532
 .362 -.1206
 .400 -.1254
 .419 -.1586 .1595
 .590 -.1080
 .600
 .697 -.1024
 .700
 .725
 .750
 .806
 .832
 .850
 .900
 .931
 .966



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AMES 67-710 1A12C (M 11 SI UPPER WING PRESSURE (UB2057))

MACH (1) = 2.499 ALPHA (0) = 2.130 PTO = 2293.200 PO = 134.600 R/PT = 2.355 Q = 567.800

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7600 .8870

X/C

.090	.0961	.1666	.2758
.250	-.1143	-.0716	
.362	-.0719		
.400		-.1403	
.419			
.550	-.1360	-.1706	
.600			-.1129
.697	-.1141		
.700		-.1854	
.725		-.1678	-.1667
.750			
.806	-.1804		
.832	-.0705	-.1777	
.850			-.1416
.900	-.1364		
.951	-.0720		
.966	-.0108		

MACH (1) = 2.499 ALPHA (7) = 4.140 PTO = 2293.200 PO = 134.600 R/PT = 2.355 Q = 567.800

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7600 .8870

X/C

.090	.1048	.1647	.2498
.250	-.1286	-.0890	
.362	-.0880		
.400		-.1442	
.419	-.1541		
.590	-.1802	-.1750	
.600			-.1167
.697	-.1236		
.700		-.1690	
.725		-.1706	-.1750
.750			
.806	-.1597		
.832	-.0832	-.1776	
.850			-.1513
.900	-.1631		
.951	-.0962		
.966	-.0262		

MACH (1) = 2.496 ALPHA (0) = 6.150 PTO = 2293.800 PO = 134.600 R/PT = 2.355 Q = 587.600
(LB/RSQ)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.9340	.6730	.7600	.8870
X/C						
.090			.0687	.1456		.2241
.290			-.1319		-.0946	
.362	-.0672					
.400						
.419			-.1636			
.550						
.600			-.1632	-.1769		
.697	-.1347					-.1242
.700						
.725			-.1709			
.750					-.1779	
.806			-.1702			
.832	-.0996					
.850			-.1717			
.900			-.1621			-.1559
.951			-.1392			
.966	-.0312					

MACH (1) = 2.496 ALPHA (9) = 8.160 PTO = 2293.800 PO = 134.600 R/PT = 2.355 Q = 587.600

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.9340	.6730	.7600	.8870
X/C						
.090			.0787	.1266		.1990
.290			-.1340		-.1060	
.362	-.0836					
.400						
.419			-.1542			
.550			-.1664	-.1635		
.600			-.1664			-.1315
.697	-.1446					
.700						
.725			-.1756			-.1607
.750						
.806			-.1623			
.832	-.1246					
.850					-.1749	
.900			-.1624			-.1616
.951			-.1642			
.966	-.0323					

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TABULATED SOURCE DATA - (A120 (WING PRESSURES))

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AMES 87-110 (A120 01 TO 10 UPPER WING PRESSURE) (UBX002) (10 APR 74)

REFERENCE DATA

BREF = 8980.0000 IN. FT. XREF = 953.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CTR = 26.860 SHAPER = .768
 GIMBAL = 1.000 RUDDER = 10.000

MACH (1) = 3.002 ALPHA (1) = -7.900 PTO = 2507.333 PO = 62.667 R/PY = 1.985 Q = 394.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	CP
.2990	.4270	.5340
.2990	.4270	.6750
.2990	.4270	.7800
.2990	.4270	.8870
.2990	.4270	.9930
.2990	.4270	.0499
.2990	.4270	-.0283
.2990	.4270	-.0289
.2990	.4270	-.0615
.2990	.4270	-.0670
.2990	.4270	-.0101
.2990	.4270	-.0249
.2990	.4270	-.0699
.2990	.4270	-.0756
.2990	.4270	-.0716
.2990	.4270	-.0514
.2990	.4270	-.0248
.2990	.4270	-.0412
.2990	.4270	-.0499
.2990	.4270	-.0603
.2990	.4270	-.0214
.2990	.4270	.0214
.2990	.4270	.0993

MACH (1) = 3.002 ALPHA (2) = -5.950 PTO = 2507.333 PO = 62.667 R/PY = 1.985 Q = 394.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	CP
.2990	.4270	.5340
.2990	.4270	.6750
.2990	.4270	.7800
.2990	.4270	.8870
.2990	.4270	.9930
.2990	.4270	.0499
.2990	.4270	-.0283
.2990	.4270	-.0289
.2990	.4270	-.0615
.2990	.4270	-.0670
.2990	.4270	-.0101
.2990	.4270	-.0249
.2990	.4270	-.0699
.2990	.4270	-.0756
.2990	.4270	-.0716
.2990	.4270	-.0514
.2990	.4270	-.0248
.2990	.4270	-.0412
.2990	.4270	-.0499
.2990	.4270	-.0603
.2990	.4270	-.0214
.2990	.4270	.0214
.2990	.4270	.0993

(LB 2062)

AMES 07-710 1A18C ON T1 S1 UPPER WING PRESSURE

MACH (1) = 3.002 ALPHA (2) = -5.920

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8670

X/C

.690
.900
.951
.966 .0357
-1.037
-.0593
-.0033
-.0669

MACH (1) = 3.002 ALPHA (3) = -3.690 PTO = 2507.333 PO = 62.667 R/PT = 1.965 Q = 394.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8670

X/C

.090
.290
.362
.400
.419
.590
.600
.697
.700
.725
.790
.806
.832
.890
.901
.931
.966 .0190
-.2022
-.0242
-.0091
-.0805
-.0693
-.0930
-.0251
-.0547
-.1117
-.0956
-.0856
-.0339
-.0815
-.1120
-.0762
-.0647

MACH (1) = 3.002 ALPHA (4) = -1.800 PTO = 2507.333 PO = 62.667 R/PT = 1.965 Q = 394.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8670

X/C

.090
.290
.362
.400
.419
.590
.600
.697
-.0990
-.1734
-.0396
-.0543
-.3410
-.0826
-.0756
-.1006
-.0965
-.0359

AMES 87-710 1A12C OI T1 S1 UPPER WING PRESSURE (UB2082)

MACH (1) = 3.002 ALPHA (8) = 2.070 PTO = 2307.353 PO = 62.667 R/F? = 1.985 Q = 394.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.1162	.1973			.2501
.250	-.0853			-.0403	
.362	-.0585				
.430		-.0775			
.419	-.0964				
.550		-.1140			
.600					-.0462
.697	-.0903				
.700		-.1305			
.725		-.1044			
.750				-.1108	
.806	-.1086				
.832	-.0785				
.850		-.1269			
.900		-.1119			-.1002
.951	-.0842				
.966	-.0320				

MACH (1) = 3.002 ALPHA (7) = 4.090 PTC = 2307.333 PO = 62.667 R/F? = 1.985 Q = 394.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.0938	.1612			.2735
.250	-.0707			-.0500	
.362	-.0696				
.400		-.0823			
.419	-.1096				
.550		-.1224	-.1193		
.600					-.0529
.697	-.0973				
.700		-.1311			
.725		-.1056			
.750				-.1146	
.806	-.1186				
.832	-.0904				
.850		-.1293			
.900		-.1207			-.1075
.951	-.1045				
.966	-.0405				



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TABULATED SOURCE DATA - IA12C (WING PRESSURES)

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WING (1) = 3.002 ALPHA (8) = 6.132 PTD = 2307.333 PO = 62.667 R/PT = 1.985 Q = 394.778 (LB/2062)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.1109	.1982	.2413
.250	-.0692	-.0647	
.362	-.0790		
.400		-.0876	
.419	-.1140		
.550		-.1243	-.1237
.600			-.0602
.697	-.1032		
.700		-.1337	
.725		-.1094	-.1201
.750			
.806	-.1266		
.832	-.0973	-.1319	
.850			-.1127
.900	-.1234		
.951	-.1222		
.966	-.0442		

WING (1) = 3.002 ALPHA (9) = 6.120 PTD = 2307.333 PO = 62.667 R/PT = 1.985 Q = 394.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.0949	.1411	.2170
.250	-.0743	-.0762	
.362	-.0771		
.400		-.0695	
.419	-.1156		
.550		-.1275	-.1268
.600			-.0695
.697	-.1102		
.700		-.1311	
.725		-.1076	-.1162
.750			
.806	-.1292		
.832	-.1106	-.1311	
.850			-.1165
.900	-.1216		
.951	-.1206		
.966	-.0520		

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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 04

AMES 87-710 1A12C 01 T1 S1 UPPER WING PRESSURE (UB2063) (16 APR 74)

REFERENCE DATA

REF = 2990.0000 80.77, 10499 = 953.0000 IN.
 LREF = 1328.0000 IN, 10499 = .0000 IN.
 BREF = 1328.0000 IN, 2499 = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 GIMBAL = 1.000 RUDDER = 10.000

MACH (1) = 3.499 ALPHA (1) = -7.740 PTO = 2305.222 PO = 30.000 R/P7 = 2.342 Q = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8670
X/C						
.090						
.250			.2786	.3604		.4016
.362			.0398		.0533	
.400		.0409		.0113		
.419						
.550						
.600						
.697						
.700						
.725						
.750						
.808						
.832						
.850						
.900						
.931						
.966						

MACH (1) = 3.499 ALPHA (2) = -5.760 PTO = 2305.222 PO = 30.000 R/P7 = 2.342 Q = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8670
X/C						
.090						
.250			.2549	.3166		.3698
.362			.0216		.0221	
.400						
.419						
.550						
.600						
.697						
.700						
.725						
.750						
.808						
.832						

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(LB 2063)

AVES 87-710 1A12C O1 T1 S1 UPPER WING PRESSURE

MACH (1) = 3.499 ALPHA (2) = -5.76C

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.890
.900
.951
.966
.0201
-0.0795
-0.0642
-0.0269
-0.0419

MACH (1) = 3.499 ALPHA (3) = -2.740 PTO = 2305.222 PO = 30.000 R/PT = 2.342 Q = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.090
.250
.362
.400
.419
.590
.600
.697
.700
.725
.750
.806
.832
.850
.900
.951
.966
.1859
-0.0007
-0.0111
-0.0462
-0.0646
-0.0707
-0.0871
-0.0825
-0.0682
-0.0617
-0.0477
-0.0067
-0.0545
-0.0148

MACH (1) = 3.499 ALPHA (4) = -1.730 PTO = 2305.222 PO = 30.000 R/PT = 2.342 Q = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.090
.250
.362
.400
.419
.550
.600
.697
.1655
-0.0065
-0.0214
-0.0536
-0.0695
-0.0729
-0.0248
-0.0261
-0.0089



(LB 2063)

MACH (1) = 3.499 ALPHA (4) = -1.730

AMES 87-710 1A12C O1 T1 S1 UPPER WING PRESSURE

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.700					
.725			-.0904		
.750			-.0795		
.808				-.0718	
.832					
.850					
.900					
.951					
.966					

MACH (1) = 3.499 ALPHA (5) = .250 PTO = 2305.222 PO = 30.070 R/FT = 2.342 Q = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090					
.250					
.362					
.400					
.419					
.550					
.600					
.697					
.700					
.725					
.750					
.808					
.832					
.850					
.900					
.951					
.966					



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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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MACH (1) = 3.499 ALPHA (6) = 2.260 PTO = 2305.222 PO = 30.000 R/PT = 2.342 Q = 259.111 (LBZ063)

AMES 87-710 1A12C OR T1 S1 UPPER WING PRESSURE

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.1129	.1896	.2811
.250	-.0324	-.0336	
.362	-.0486		
.400		-.0380	
.419	-.0761		
.550	-.0875	-.0844	
.600			-.0049
.697	-.0744		
.700		-.1008	
.725	-.0904		
.750		-.0833	
.806	-.0906		
.832	-.0766		
.850		-.0997	
.900	-.0939		-.0720
.951	-.0875		
.966	-.0466		

MACH (1) = 3.499 ALPHA (7) = 4.290 PTO = 2305.222 PO = 30.000 R/PT = 2.342 Q = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.1019	.1759	.2747
.250	-.0340	-.0495	
.362	-.0566		
.400		-.0440	
.419	-.0783		
.550	-.0670	-.0904	
.600			-.0097
.697	-.0604		
.700		-.1024	
.725	-.0904		
.750		-.0677	
.806	-.0823		
.832	-.0659		
.850		-.1051	
.900	-.0997		-.0741
.951	-.0823		
.966	-.0509		

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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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MACH (1) = 3.499 ALPHA (6) = 6.310 PTO = 2305.222 PO = 30.000 R/PT = 2.342 Q = 259.111
 (LBZ063)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090	.1097	.1602	.2321
.250	-.0323	-.0549	
.362	-.0691		
.400		-.0440	
.419	-.0606		
.550		-.5686	-.0898
.600			-.0179
.697	-.0621		
.700		-.1013	
.725	-.0926		
.750		-.0893	
.806	-.0974		
.832	-.0664		
.850		-.1035	
.900	-.1006		-.0785
.951	-.0996		
.966	-.0909		

MACH (1) = 3.499 ALPHA (9) = 8.290 PTO = 2305.222 PO = 30.000 R/PT = 2.342 Q = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090	.0955	.1363	.2071
.250	-.0376	-.0631	
.362	-.0695		
.400		.0511	
.419	-.0681		
.550	-.0697	-.0953	
.600			-.0277
.697	-.0692		
.700		-.1090	
.725	-.0920		
.750		-.0956	
.806	-.0985		
.832	-.0919		
.850		-.1064	-.0656
.900	-.1030		
.951	-.0685		
.966	-.0602		



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TABULATED SOURCE DATA - 1A12C WING PRESSURES

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AUG 67-710 1A12C ON T1 S1 UPPER WING PRESSURE (US2066) (16 APR 74)

REFERENCE DATA

$WREF = 2990.0000$ SQ.FT. $WREF = 953.0000$ IN.
 $LREF = 1326.0000$ IN. $YREF = .0000$ IN.
 $BREF = 1326.0000$ IN. $ZREF = 400.0000$ IN.
 $SCALE = .0190$ SCALE

PARAMETRIC DATA

$BETA = .000$ $POWER = 1.000$
 $CPR = 23.860$ $SRPR = .826$
 $GIMBAL = 1.000$ $RUDDER = 10.000$

$MACH (1) = 3.499$ $ALPHA (1) = -7.770$ $PTO = 2510.222$ $PO = 30.000$ $R/PT = 1.449$ $Q = 260.000$

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .2621 .3607 .4093
 .290 .0366 .0731
 .362 .0416 .0103
 .400 .0135
 .419 -.0135
 .590 -.0443 -.0426
 .600 .0591
 .697 -.0171
 .700 -.0672
 .725 -.0547
 .750 -.0417
 .876 -.0416
 .832 -.0122
 .850 -.0705
 .900 -.0542
 .951 -.0086
 .966 .0503
 .0510

$MACH (1) = 3.499$ $ALPHA (2) = -5.750$ $PTO = 2510.222$ $PO = 30.000$ $R/PT = 1.449$ $Q = 260.000$

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .2365 .3159 .3749
 .290 .0206 .0237
 .362 .0201
 .400 .0087
 .419 -.0084
 .590 -.0540 -.0566
 .600 .0269
 .697 -.0264
 .700 -.0764
 .725 -.0573
 .750 -.0535
 .806 -.0496
 .832 -.0267

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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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(US 2006)

AWES 87-710 1A12C O1 T1 S1 UPPER WING PRESSURE

MACH (1) = 3.499 ALPHA (4) = -1.750

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.700 -.0698

.725 -.0819

.750 -.0698

.806 -.0864

.832 -.0957

.850 -.0698

.900 -.0781

.951 -.0514

.966 -.0106

-.0598

MACH (1) = 3.499 ALPHA (5) = .250 PTO = 2310.222 PO = 30.000 R/PY = 1.449 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090

.250

.362 -.0263

.400

.419

.590 -.0804

.600

.697 -.0831

.700

.725

.750

.806 -.0773

.832 -.0842

.850

.900

.951

.966 -.0163

.1410

.2003

-.0197

-.0326

-.0600

-.0780

.0063

-.0694

-.0832

-.0756

-.0861

-.0834



A-ES 87-710 1A12C OR T1 S1 UPPER WING PRESSURE (LB/2066)

MACH (1) = 3.499 ALPHA (8) = 2.220 PTO = 2310.222 PO = 30.000 R/R7 = 1.449 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7600	.8870
X/C						
.090			.1153	.1902		.2879
.290			-.0300		-.0312	
.382	-.0370					
.400				-.0394		
.419			-.0804			
.550				-.0828	-.0872	
.600						-.0047
.697	-.0668					
.700				-.0911		
.725			-.0666			
.750					-.0731	
.806		-.0822				
.832	-.0724					
.853				-.0903		
.900			-.0843			-.0872
.951		-.0713				
.966	.0114					

MACH (1) = 3.499 ALPHA (7) = 4.240 PTO = 2310.222 PO = 30.000 R/R7 = 1.449 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7600	.8870
X/C						
.090			.0870	.1768		.2805
.290			-.0365		-.0459	
.382	-.0489					
.400				-.0431		
.419		-.0713				
.550			-.0844	-.0894		
.600						-.0093
.697	-.0800					
.700				-.0905		
.725			-.0665		-.0753	
.750						
.806		-.0883				
.832	-.0822					
.850				-.0916		
.900			-.0694			-.0716
.951		-.0822				
.966	-.0141					



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TABULATED SOURCE DATA - (A120 (WING PRESSURES))

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AWES 87-710 (A120 ON T1 S1 UPPER WING PRESSURE) (LB/2000)

MACH (1) = 3.499 ALPHA (8) = 6.200 PTO = 2310.222 PO = 30.000 R/P/T = 1.449 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.1066	.1622			.2360
.290	-.0349		-.0502		
.362	-.0362				
.400		-.0458			
.419	-.0773				
.550	-.0649	-.0461			
.600					-.0186
.697	-.0649				
.700		-.0694			
.721	-.0682			-.0747	
.750					
.808	-.0669				
.832	-.0655				
.850		-.0669			
.900	-.0910				-.0715
.951	-.0644				
.966	-.0628				

MACH (1) = 3.499 ALPHA (9) = 8.250 PTO = 2310.222 PO = 30.000 R/P/T = 1.449 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.0970	.1362			.2152
.290	-.0361		-.0398		
.362	-.0368				
.400		-.0503			
.419	-.0681				
.550	-.0617	-.0631			
.600					-.0164
.697	-.0639				
.700		-.0687			
.725	-.0666			-.0773	
.750					
.808	-.0642				
.832	-.0677				
.850		-.0900			
.870	-.0803				-.0700
.951	-.0634				
.966	-.0556				

AVES 87-710 1A12C 05 T1 S1 UPPER WING PRESSURE

(182087) (18 APR 74)

REFERENCE DATA

WING = 8990.0000 SQ.FT. WING = 953.0000 IN.
 LIFT = 1328.0000 IN. WING = .0000 IN.
 DRIFT = 1328.0000 IN. WING = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CPR = 31.260 SWPR = .916
 GIMBAL = 1.000 RUDDER = 10.000

MACH (1) = 2.499 ALPHA (1) = -7.910 PTO = 2314.444 PO = 139.778 R/PY = 2.990 Q = 593.822

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.5340	.6750	.7600	.8870
X/C						
.090			.2810	.3493		.3952
.290			.0048		.0281	
.342	.0391					
.400				-.0312		
.419		-.0372				
.590			-.0858	-.0887		
.600						-.0698
.697	-.0297					
.700				-.1152		
.725			-.1051			-.1084
.750						
.806		-.0161				
.832	.0311			-.1070		
.900		-.0181				-.0882
.921		.0889				
.946	.0840					

MACH (2) = 2.499 ALPHA (2) = -5.860 PTO = 2314.444 PO = 139.778 R/PY = 2.990 Q = 593.822

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.5340	.6750	.7600	.8870
X/C						
.090			.2363	.2978		.3373
.290			-.0279		.0093	
.342	.0042					
.400				-.0809		
.419		-.0854				
.590			-.1079	-.1084		
.600						-.0854
.697	-.0901					
.700				-.1327		
.725		-.1211				-.1248
.750						
.806		-.0414				
.832	.0072					

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AMES 87-710 1A12C CS T1 S1 UPPER WING PRESSURE (US2007)

MACH (1) = 2.406 ALPHA (2) = -5.860

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8980 .4270 .5340 .6750 .7600 .8870

X/C					
.890					
.900					
.911					
.946					

MACH (1) = 2.499 ALPHA (3) = -3.060 PTO = 2314.444 PO = 135.778 R/PT = 2.990 Q = 993.822

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8980 .4270 .5340 .6750 .7600 .8870

X/C					
.090					
.290					
.362					
.400					
.419					
.500					
.600					
.697					
.700					
.725					
.750					
.808					
.832					
.850					
.900					
.951					
.966					

MACH (1) = 2.499 ALPHA (4) = -1.560 PTO = 2314.444 PO = 135.778 R/PT = 2.990 Q = 993.822

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8980 .4270 .5340 .6750 .7600 .8870

X/C					
.090					
.290					
.362					
.400					
.419					
.500					
.600					
.697					

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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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(LB/2067)

MACH (1) = 2.499 ALPHA (4) = -1.8

AMES 87-710 1A12C OS T1 S1 UPPER WING PRESSURE

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.700 -.1601
 .725 -.1487
 .750 -.1508
 .806 -.0816
 .832 -.0403
 .850
 .900
 .951
 .966 .0179
 -.1569
 -.0798
 -.0103
 -.1346

MACH (1) = 2.499 ALPHA (5) = 10

PTO = 2314.444 PO = 135.776 R/PT = 2.950 Q = 993.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050
 .250 .1408 .2037 .2955
 .362 -.0808 -.1102 -.0508
 .400
 .419 -.1300
 .550
 .600 -.1589 -.1599
 .697 -.1024
 .700
 .725 -.1774
 .750
 .806 -.1604
 .822 -.1009
 .850
 .900
 .951 -.0597
 .966 .0040
 -.1600
 -.1765
 -.1406
 -.1098

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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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AVES 87-710 1A12C OS T1 S1 UPPER WING PRESSURE (UB2087)

MACH (1) = 2.499 ALPHA (0) = 2.115 PTD = 2514.444 PO = 133.778 R/PT = 2.990 Q = 593.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.0951	.1865	.2712
.290	-.1190	-.0698	
.362	-.0727		
.400		-.1400	
.419	-.1392		
.590	-.1727	-.1694	
.600			-.1165
.697	-.1149		
.700		-.1851	
.725	-.1691		-.1661
.750			
.806	-.1202		
.832	-.0707		
.850		-.1785	
.900	-.1343		-.1461
.951	-.0716		
.986	-.0116		

MACH (1) = 2.499 ALPHA (7) = 4.130 PTD = 2514.444 PO = 133.778 R/PT = 2.990 Q = 593.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.1042	.1656	.2492
.290	-.1299	-.0839	
.362	-.0613		
.400		-.1445	
.419	-.1529		
.590	-.1616	-.1726	
.600			-.1229
.697	-.1242		
.700		-.1681	
.725	-.1712		-.1724
.750			
.806	-.1363		
.832	-.0842		
.850		-.1789	
.900	-.1614		-.1553
.951	-.0966		
.986	-.0256		

MACH (1) = 2.499 ALPHA (8) = 6.130 PTO = 2314.444 PO = 135.778 R/PT = 2.990 Q = 593.222
 (UB2087)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.0899	.1468	.2214
.250	-.1314	-.0928	
.362	-.0889		
.400		-.1504	
.419	-.1646		
.550	-.1840	-.1790	
.600			-.1289
.697	-.1357		
.700		-.1900	
.725	-.1726		
.750		-.1762	
.806	-.1694		
.832	-.0996		
.850		-.1697	
.900	-.1623		-.1802
.951	-.1388		
.966	-.0290		

MACH (1) = 2.499 ALPHA (9) = 8.160 PTO = 2314.444 PO = 135.778 R/PT = 2.990 Q = 593.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.0777	.1265	.1970
.250	-.1337	-.1065	
.362	-.0936		
.400		-.1554	
.419	-.1702		
.550	-.1867	-.1644	
.600			-.1360
.697	-.1464		
.700		-.1504	
.725	-.1738		
.750		-.1808	
.806	-.1831		
.832	-.1256		
.850		-.1721	
.900	-.1622		-.1667
.951	-.1644		
.966	-.0756		



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TABULATED SOURCE DATA - (A12C WING PRESSURES)

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AVES 87-710 A12C 08 T1 S1 UPPER WING PRESSURE (UB2068) (16 APR 74)

REFERENCE DATA

SERP = 2890.0000 SQ.FT. XMRP = 983.0000 IN.
 LREF = 1328.0000 IN. YMRP = .0000 IN.
 BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CRR = 31.260 SRMRP = .916
 GIMBAL = 1.000 RUDDER = 10.000

MACH (1) = 2.499 ALPHA (1) = -7.870 PTO = 2311.333 PO = 135.444 R/PT = 2.937 Q = 592.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.050			.2801	.3465	.3934	
.250			.0035		.0259	
.362	.0368					
.400				-.0545		
.419		-.0388				
.550			-.0663	-.0909		
.600					-.0869	
.697	-.0309					
.700				-.1179		
.725			-.1055			
.750					-.1093	
.808		-.0188				
.832	.0275			-.1083		
.850			-.0188		-.0869	
.900						
.951		.0836				
.988	.0686					

MACH (1) = 2.499 ALPHA (2) = -9.870 PTO = 2311.333 PO = 135.444 R/PT = 2.937 Q = 592.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.050			.2359	.2943	.3561	
.250			-.0267		.0099	
.362	.0085					
.400				-.0829		
.419		-.0860				
.550			-.1083	-.1101		
.600					-.0851	
.697	-.0532					
.700				-.1347		
.725			-.1223			
.750					-.1239	
.808		-.0429				
.832	.0037					

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TABULATED SOURCE DATA - (A12C WING PRESSURES)

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MACH (1) = 2.499 ALPHA (4) = -1.850

AVES 87-710 IAI2C OS T1 S1 UPPER WING PRESSURE (LB/2068)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.700				-.1627		
.725			-.1509			
.750					-.1548	
.806		-.0826				
.832	-.0440					
.850			-.1593			
.900		-.0824			-.1359	
.951		-.0131				
.966	.0142					

MACH (1) = 2.499 ALPHA (5) = .170 PTO = 2311.333 PO = 135.444 R/FT = 2.937 Q = 592.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.1372	.2006		.2966
.250			-.1124		-.0549	
.362	-.0839					
.400				-.1306		
.419		-.1284				
.550			-.1606	-.1616		
.600					-.1123	
.697	-.1054					
.700			-.1621	-.1793		
.725					-.1636	
.750						
.806		-.1045				
.832	-.0631					
.850			-.1791			
.900		-.1015			-.1443	
.951		-.0410				
.966	-.0013					

AMES 87-710 1A12C OS T1 S1 UPPER WING PRESSURE (UB2082)

MACH (1) = 2.499 ALPHA (6) = 2.130 PTO = 2511.333 PO = 135.444 R/T = 2.937 Q = 592.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8870

X/C	.090	.250	.362	.400	.419	.550	.600	.697	.700	.725	.806	.832	.850	.900	.951	.966
CP	.0924	.1853	.2676	-.0745	-.1416	-.1716	-.1204	-.1169	-.1681	-.1704	-.1694	-.1802	-.1363	-.0757	-.0142	

MACH (1) = 2.499 ALPHA (7) = 4.170 PTO = 2511.333 PO = 135.444 R/T = 2.937 Q = 592.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8870

X/C	.090	.250	.362	.400	.419	.550	.600	.697	.700	.725	.806	.832	.850	.900	.951	.966
CP	.1031	.1828	.2458	-.0628	-.1463	-.1746	-.1245	-.1260	-.1902	-.1741	-.1748	-.1787	-.1647	-.0997	-.0279	

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

WACH (1) = 2.499 ALPHA (8) = 6.130 PTO = 2311.533 PO = 135.444 R/PT = 2.937 Q = 592.444
 (UP 7086)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.0873	.1439		.2196
.250			-.1326		-.0953	
.362	-.0876			-.1536		
.400						
.419		-.1696				
.550			-.1846	-.1820		
.600						-.1308
.627	-.1363					
.700			-.1932			
.723			-.1739		-.1789	
.750						
.806		-.1722				
.832	-.1015		-.1725			
.850						-.1613
.900			-.1646			
.951		-.1402				
.966	-.0320					

WACH (1) = 2.699 ALPHA (3) = 6.180 PTO = 2311.533 PO = 135.444 R/PT = 2.937 Q = 592.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.0754	.1256		.1944
.250			-.1370		-.1076	
.362	-.0960			-.1562		
.400						
.419		-.1722				
.550			-.1664	-.1661		
.600						-.1374
.697	-.1472					
.700			-.1916			
.725			-.1761		-.1626	
.750						
.806		-.1651				
.832	-.1276					
.850			-.1759			-.1676
.900			-.1651			
.951		-.1656				
.966	-.0361					

AVES 87-710 1A12C CS T1 S1 UPPER WING PRESSURE (UBZ069) (18 APR 74)

REFERENCE DATA

SECT = 2000.0000 52.5 FT. XMRP = 955.0000 IN.
 LREF = 1328.0000 IN. YMRP = .0000 IN.
 BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CTR = 28.880 STMPR = .768
 GIMBAL = 1.000 RUDDER = 10.000

MACH (1) = 3.003 ALPHA (1) = -7.630 PTO = 2508.778 PO = 62.556 R/PT = 2.245 Q = 394.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .2673 .3556 .3916
 .250 .0151 .0490
 .362 .0390
 .400
 .419 -.0273 -.0318
 .550 -.0635 -.0672
 .600 -.0097
 .697 -.0241
 .700 -.0901
 .725 -.0736
 .750 -.0740
 .808
 .832 -.0316
 .850
 .900 -.0916
 .900 -.0443 -.0995
 .951 .0876
 .966 .0801

MACH (1) = 3.003 ALPHA (2) = -5.890 PTO = 2508.778 PO = 62.556 R/PT = 2.245 Q = 394.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .0327 .3171 .3522
 .250 -.0093 .0288
 .362 .0101
 .400
 .419 -.0471
 .540 -.0482
 .600 -.0794 -.0839
 .697 -.0416
 .700 -.1037
 .725 -.0897
 .750
 .808 -.0902
 .852 -.0167



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-710 1A12C 05 11 S1 UPPER WING PRESSURE (LB/2069)

MACH (1) = 3.003 ALPHA (2) = -5.89C

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.890 .1059
.900 -.0026
.911 -.0064
.946 .0324
-0.107

MACH (1) = 3.003 ALPHA (3) = -3.890 PTO = 2308.778 PC = 62.556 R/PT = 2.245 Q = 394.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .2002 .2587 .3619
.290 -.0232 .0117
.362 -.0116
.400 -.0599
.41 -.0641
.50 -.0910 -.0956
.600 -.0976
.697 -.0976
.700 -.1123
.725
.750
.790
.806 -.0867
.832 -.0364
.850
.900
.951
.966 .0136
-0.0696
-0.1151
-0.0943
-0.0794
-0.0234

MACH (1) = 3.003 ALPHA (4) = -1.690 PTO = 2308.778 PC = 62.556 R/PT = 2.245 Q = 394.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .1723 .2081 .3370
.290 -.0413
.362 -.0320
.400
.41 -.0754
.500
.600
.697 -.0718
-0.0362
-0.1017
-0.0394

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 06

(LB 2069)

AMES 87-710 1A12C CD T1 S1 UPPER WING PRESSURE

MACH (1) = 3.003 ALPHA (4) = -1.890

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.703					
.725					
.750					
.808					
.832					
.850					
.900					
.951					
.966					

MACH (1) = 3.003 ALPHA (5) = .100 PTO = 2308.718 PO = 62.356 R/PT = 2.245 Q = 994.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090					
.250					
.362					
.400					
.419					
.590					
.800					
.897					
.700					
.725					
.750					
.808					
.832					
.850					
.900					
.951					
.966					



AVES 67-710 1A12C OF T1 S1 UPPER WING PRESSURE (LB2069)

MACH (1) = 3.003 ALPHA (6) = 2.070 PTO = 2306.778 PO = 62.556 R/PT = 2.245 Q = 394.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.1143	.1926		.2858
.250			-.0890		-.0433	
.362	-.0803					
.400				-.0821		
.419		-.0962				
.550			-.1204	-.1180		
.900						-.0496
.697	-.0814					
.700				-.1335		
.725			-.1112		-.1137	
.750						
.806		-.1089				
.632	-.0792			-.1295		
.850						-.1027
.900		-.1177				
.951	-.0856					
.966	-.0390					

MACH (1) = 3.003 ALPHA (7) = 4.090 PTO = 2306.778 PO = 62.556 R/PT = 2.245 Q = 394.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.0936	.1785		.2675
.250			-.0740		-.0326	
.362	-.0704					
.400				-.0674		
.419		-.1074				
.550			-.1296	-.1227		
.900						-.0595
.697	-.0968					
.700			-.1334			
.725		-.1133			-.1176	
.750						
.806		-.1195				
.632	-.0916			-.1320		-.1094
.850			-.1253			
.900						
.951		-.1071				
.966	-.0401					

DATE 06 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-71C 1A12C CE T1 S1 UPPER WING PRESSURE (UBX089)

MACH (1) = 3.003 ALPHA (8) = 9.070 PTO = 2508.778 PO = 62.556 R/PT = 2.245 Q = 394.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8670

X/C

.090	.1080	.1977	.2378
.290	-.0739	-.0666	
.362	-.0764		
.400		-.0901	
.419	-.1151		
.550		-.1249	
.630			-.0612
.697	-.1051		
.700		-.1360	
.725	-.1127		
.790		-.1224	
.808	-.1316		
.832	-.1004		
.850		-.1332	
.900	-.1253		-.1139
.951	-.1259		
.966	-.0484		

MACH (1) = 3.003 ALPHA (9) = 9.100 PTO = 2508.778 PO = 62.556 R/PT = 2.245 Q = 394.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8670

X/C

.090	.0923	.1370	.2156
.290	-.0772	-.0764	
.362	-.0776		
.400		-.0946	
.419	-.1181		
.590		-.1310	-.1300
.600			-.0871
.697	-.1116		
.700		-.1390	
.725	-.1160		-.1226
.737			
.808	-.1313		
.832	-.1127		
.850		-.1332	-.1163
.900	-.1262		
.951	-.1824		
.966	-.0984		



DATE 03 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

AVES 87-710 (A12C OB T1 S1 UPPER WING PRESSURE) (LB/FT²) (10 APR 74)

PARAMETRIC DATA

BETA = .000 POWER = 1.000
OPR = 23.860 SHFTD = .026
GIMBAL = 1.000 RUDDER = 10.000

REFERENCE DATA

SWEP = 2490.0000 SQ.FT. XREF = 953.0000 IN.
LREF = 1328.0000 IN. YREF = 7000 IN.
BREF = 1328.0000 IN. ZREF = 400.0000 IN.
SCALE = .0190 SCALE

MACH (1) = 3.499 ALPHA (1) = -7.730 PTO = 2310.111 PO = 30.111 R/PY = 1.753 Q = 259.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE C_T

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.050 .2847 .3587 .4050
.250 .0413 .0606
.362 .0368 .0091
.400 .0091
.419 -.0145
.550 -.0422 -.0440
.600 -.0366
.697 -.0187
.700 -.0705
.723 -.0564
.750 -.0423
.706 -.0378
.832 -.0111
.850 -.0736
.900 -.0564
.951 -.0042
.966 .0316

MACH (1) = 3.499 ALPHA (2) = -5.790 PTO = 2310.111 PO = 30.111 R/PY = 1.753 Q = 259.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE C_T

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.050 .2532 .3169 .3713
.250 .0201 .0194
.362 .0163 .0112
.400 .0112
.419 -.0316
.550 -.0531 -.0603
.600 .0214
.697 -.0359
.700 -.0795
.723 -.0576
.750 -.0576
.832 -.0537
.850 -.0291

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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AVES 07-710 1A12C 08 T1 S1 UPPER WING PRESSURE (US2070)

MACH (1) = 3.499 ALPHA (2) = -5.750

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.890
.900
.911
.966
.0212
-.0291
-.0625
-.0789
-.0474

MACH (1) = 3.499 ALPHA (3) = -3.770 PTO = 2310.111 PO = 30.111 R/PT = 1.753 Q = 259.669

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090
.250
.362
.400
.419
.550
.600
.697
.710
.725
.750
.806
.832
.850
.900
.951
.966
.0098
.1947
.0027
-.0021
-.0421
-.0640
-.0712
-.0630
-.0698
-.0801
-.0426
-.0326
-.0701
-.0643
-.0900
-.0825
.3910
.0080
-.0225
.0194

MACH (1) = 3.499 ALPHA (4) = -1.770 PTO = 2310.111 PO = 30.111 R/PT = 1.753 Q = 259.669

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090
.250
.362
.400
.419
.550
.600
.697
.0098
.1685
-.0080
-.0191
-.0533
-.0725
-.0746
.3535
-.0251
-.0333
.0091

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(UB2070)

AVES 07-710 1A12C 05 T1 S1 UPPER WING PRESSURE

MACH (1) = 3.499 ALPHA (4) = -1.770

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.700						
.725						
.750						
.808						
.832						
.850						
.900						
.951						
.966						

MACH (1) = 3.499 ALPHA (5) = .250 PTO = 2310.111 PO = 30.111 R/PT = 1.753 Q = 259.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050						
.250						
.362						
.400						
.419						
.550						
.600						
.697						
.700						
.725						
.750						
.808						
.832						
.850						
.900						
.951						
.966						

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AVES 87-710 1A12C OS TI S1 UPPER WING PRESSURE (LB/2070)

MACH (1) = 3.499 ALPHA (6) = 2.250 PTO = 2310.111 PO = 30.111 R/T = 1.753 Q = 259.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090		.1111	.1900		.2796	
.290		-.0335		-.0342		
.362	-.0411					
.400		-.0407				
.419						
.590		-.0722	-.0870	-.0844		
.600					-.0062	
.697	-.0766					
.700			-.0942			
.725		-.0707			-.0622	
.750						
.806		-.0666				
.832	-.0766			-.0953		
.850						
.900		-.0666			-.0714	
.931	-.0794					
.966	-.0302					

MACH (1) = 3.499 ALPHA (7) = 4.250 PTO = 2310.111 PO = 30.111 R/T = 1.753 Q = 259.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090		.0934	.1799		.2616	
.290		-.0367		-.0443		
.362	-.0256					
.400			-.0443			
.419		-.0776				
.590			-.0696	-.0699		
.600					-.0102	
.697	-.0617					
.700			-.0959			
.725		-.0742			-.0607	
.750						
.806		-.0942				
.832	-.0849			-.0946		
.850						-.0754
.900		-.0965				
.931	-.0909					
.966	-.0403					



DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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AMES 87-710 1A12C OF 71 SI UPPER WING PRESSURE (LB/FT²)

MACH (1) = 3.499 ALPHA (8) = 6.295 PTD = 2310.111 PO = 30.111 R/PT = 1.753 Q = 259.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6790 .7800 .8870

X/C

.090	.1095	.1571	.2332
.250	-.0363	-.0539	
.362	-.0561		
.400		-.0484	
.419	-.0837		
.550	-.0886	-.0509	
.600			-.0191
.697	-.0632		
.700		-.0531	
.725	-.0757		
.750		-.0628	
.806	-.0968		
.832	-.0661		
.850		-.0537	
.900	-.0975		-.0175
.951	-.0941		
.966	-.0401		

MACH (1) = 3.499 ALPHA (9) = 6.250 PTD = 2310.111 PO = 30.111 R/PT = 1.753 Q = 259.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6790 .7800 .8870

X/C

.090	.0943	.1352	.2119
.250	-.0395	-.0598	
.362	-.0657		
.400		-.0543	
.419	-.0666		
.550	-.0853	-.0671	
.600			-.0228
.697	-.0813		
.700		-.0931	
.725	-.0740		
.750		-.0735	
.806	-.1006		
.832	-.0984		
.850		-.0926	
.900	-.0958		-.0747
.951	-.0886		
.966	-.0813		

DATE 08 DEC 74

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TABULATED SOURCE DATA - (A12C WING PRESSURES)

AMES 87-710 A12C OS T1 S1 UPPER WING PRESSURE (LBZ071) (16 APR 74)

REFERENCE DATA

REF = 2980.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1326.0000 IN. YREF = .0000 IN.
 BREF = 1326.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 2.000
 STPR = .828 G1MEAL = 1.000
 RUDDER = 10.000

MACH (1) = 3.499 ALPHA (1) = -7.750 PTO = 2295.556 PO = 30.000 R/PY = 1.746 Q = 258.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090	.2616	.3577	.4042
.250	.0363		.0569
.362	.0362		
.400		.0079	
.419			
.590	-.0162	-.0472	.0356
.600			
.697	-.0200		
.700		-.0714	
.725		-.0576	-.0439
.750			
.806	-.0421		
.832	-.0145	-.0764	
.890			-.0347
.900	-.0567		
.951	-.0085		
.966	.0468		

MACH (1) = 3.499 ALPHA (2) = -5.740 PTO = 2295.556 PO = 30.000 R/PY = 1.746 Q = 258.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090	.2351	.3105	.3701
.250	.0176	.0213	
.362	.0176		
.400		-.0136	
.419			
.590	-.0314	-.0616	.0216
.600			
.697	-.0360		
.700		-.0795	
.725		-.0637	-.0577
.750			
.806	-.0900		
.832	-.0262		



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-710 1A12C OB T1 S1 UPPER WING PRESSURE (0.2071)

MACH (1) = 3.499 ALPHA (2) = -5.740

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7600 .8870

X/C

.890
.900
.951
.966

-.0812
-.0875
-.0280
.0182

-.0494

MACH (1) = 3.499 ALPHA (3) = -3.740 PTO = 2295.556 PO = 30.000 R/PT = 1.746 Q = 258.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7600 .8870

X/C

.0290
.250
.362
.400
.419
.550
.600
.697
.700
.725
.730
.806
.832
.890
.900
.951
.966

.1914
-.0015
-.0006
-.0460
-.0851
-.0444
-.0666
-.0840
-.0762
-.0444
-.0003

.2615
.0089
-.0227
-.0897
-.0687
-.0831
-.0655
-.0545
-.0191

.3900
.0089
.0191

MACH (1) = 3.499 ALPHA (4) = -1.750 PTO = 2295.556 PO = 30.000 R/PT = 1.746 Q = 258.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7600 .8870

X/C

.050
.250
.362
.400
.418
.550
.600
.697

.1651
-.0102
-.0181
-.0676
-.0721
-.0948

.1990
-.0279
-.0311
-.0735
.0071

.3582

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/2071)

AMES 87-710 1A12C 08 T1 S1 UPPER WING PRESSURE

MACH (1) = 3.498 ALPHA (4) = -1.750

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7600 .8870

X/C
 .700 -.0914
 .725 -.0669
 .750 -.0766
 .808 -.0743
 .832 -.0256
 .850 -.0952
 .900 -.0628
 .951 -.0800
 .966 -.0172
 -.0636

MACH (1) = 3.498 ALPHA (5) = .260 PTO = 2295.556 PO = 30.000 R/PT = 1.746 Q = 258.822

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7600 .8870

X/C
 .080 .1360 .8005 .3275
 .250 -.0246
 .362 -.0332
 .400 -.0332
 .419 -.0682
 .550 -.0619
 .600 -.0767
 .697 -.0029
 .700 -.0974
 .725 -.0758
 .750 -.0604
 .808 -.0624
 .832 -.0676
 .850 -.0952
 .900 -.0664
 .951 -.0742
 .966 -.0668
 -.0336



WING (1) = 3.499 ALPHA (6) = 2.240 PTO = 2295.556 PO = 30.000 R/PT = 1.746 Q = 256.222 (LB/2071)

WING (1) = 3.499 ALPHA (6) = 2.240 PTO = 2295.556 PO = 30.000 R/PT = 1.746 Q = 256.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .1132 .1917 .2832
 .250 -.0330 -.0364
 .362 -.0455
 .400 -.0413
 .419 -.0763
 .550 -.0662 -.0860
 .600 -.0068
 .697 -.0756
 .700 -.0996
 .725 -.0754
 .750 -.0656
 .806 -.0826
 .832 -.0765
 .850 -.1012
 .900 -.0929
 .951 -.0673
 .966 -.0455

WING (1) = 3.499 ALPHA (7) = 2.240 PTO = 2295.556 PO = 30.000 R/PT = 1.746 Q = 256.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .0974 .1774 .2610
 .250 -.0373 -.0464
 .362 -.0516
 .400 -.0446
 .419 -.0613
 .550 -.0695 -.0913
 .600 -.0129
 .697 -.0791
 .700 -.0904
 .725 -.0776
 .750 -.0675
 .806 -.0956
 .832 -.0840
 .850 -.0904
 .900 -.0946
 .951 -.0934
 .966 -.0499

DATE 09 DEC 74

TABULATED SOURCE DATA - (A12C (WING PRESSURES))

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(UB2071)

MACH (1) = 3.499 ALPHA (8) = 6.260 PTO = 2295.556 PO = 30.000 R/PT = 1.746 Q = 256.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6750 .7600 .8670

X/C

.050	.1064	.1566	.2322
.250	-.0545	-.0983	
.362	-.0809		
.400		-.0464	
.419	-.0879		
.550	-.0906	-.0935	
.600			-.0216
.697	-.0673		
.700		-.1039	
.725	-.0797		
.750		-.0546	
.806	-.0978		
.832	-.0901		
.850		-.1056	
.900	-.1017		-.0626
.951	-.1005		
.966	-.0965		

MACH (1) = 3.499 ALPHA (9) = 6.290 PTO = 2295.556 PO = 30.000 R/PT = 1.746 Q = 256.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6750 .7600 .8670

X/C

.050	.0922	.1362	.2136
.250	-.0427	-.0865	
.362	-.0647		
.400		-.0521	
.419	-.0622		
.550	-.0922	-.0956	
.600			-.0273
.697	-.0664		
.700		-.1017	
.725	-.0797		
.750		-.0935	
.806	-.1021		
.832	-.0935		
.850		-.1023	
.900	-.1017		-.0659
.951	-.1010		
.966	-.0825		



AMES 67-710 1A12C Q1 T1 94 UPPER WING PRESSURE (UB2072) (16 APR 74)

REFERENCE DATA

SREF = 2990.0000 SQ.FT. XREF = 943.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 470.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CPR = 31.280 SWPR = .916
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 2.498 ALPHA (1) = -7.690 PTO = 2318.333 PO = 136.333 R/PT = 2.941 Q = 594.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .2790 .3915 .3941
 .250 .0054 .0329
 .362 .0392
 .400 -.0438
 .419 -.0363
 .550 -.0842 -.0803
 .600 -.0863
 .697 -.0305
 .700 -.1075
 .725 -.0940
 .750 -.1004
 .808 -.0178
 .832 .0295
 .850 -.0990
 .900 -.0086
 .951 .0863
 .966 .0913

MACH (1) = 2.498 ALPHA (2) = -5.520 PTO = 2318.333 PO = 136.333 R/PT = 2.941 Q = 594.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .2562 .3016 .3579
 .250 -.0249 .0145
 .362 .0095
 .400 -.0732
 .419 -.0841
 .550 -.1086 -.0999
 .600 -.0831
 .697 -.0496
 .700 -.1850
 .725 -.1130
 .750 -.1166
 .808 -.0404
 .832 .0099

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB 2072)

AVES 87-710 1A12C ON T1 S4 UPPER WING PRESSURE

MACN (1) = 2.438 ALPHA (4) = -1.660

SECTION (1) 1108BITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
.700						
.725						
.750						
.806						
.832						
.890						
.900						
.931						
.966						

MACN (1) = 2.488 ALPHA (5) = .120 PTO = 2318.333 PO = 136.333 R/PT = 2.941 Q = 994.778

SECTION (1) 1108BITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
K/C						
.090						
.230						
.362						
.400						
.419						
.530						
.600						
.697						
.700						
.725						
.790						
.808						
.832						
.890						
.900						
.931						
.966						

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C(WING PRESSURES)

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AMES 87-P10 1A12C ON T1 94 UPPER WING PRESSURE (UG2072)

MACH (1) = 2.408 ALPHA (1) = 2.160 PTO = 2318.333 PO = 136.333 R/FY = 2.941 Q = 594.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7800	.8870
K/C						
.090			.0942	.1916	.2712	
.290			-.1147		-.0647	
.382	-.0723					
.400				-.1312		
.419		-.1383				
.590			-.1714	-.1613		
.600					-.1165	
.697	-.1151					
.700				-.1772		
.725			-.1592			
.750					-.1581	
.808		-.1202				
.832	-.0718			-.1700		
.850			-.1281		-.1447	
.900						
.951		-.0713				
.966	-.0121					

MACH (1) = 2.408 ALPHA (1) = 4.130 PTO = 2318.333 PO = 136.333 R/FY = 2.941 Q = 594.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7800	.8870
K/C						
.090			.1077	.1709	.2484	
.290			-.1273		-.0766	
.382	-.0601					
.400				-.1366		
.419		-.1802				
.590			-.1798	-.1652		
.600					-.1214	
.697	-.1229					
.700				-.1798		
.725			-.1628			
.750					-.1631	
.808		-.1397				
.832	-.0637			-.1668		
.850			-.1546		-.1535	
.900						
.951		-.0947				
.966	-.0228					

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 103

AVES 87-710 1A12C O1 T1 S4 UPPER WING PRESSURE (UB2072)

MACH (1) = 2.498 ALPHA (9) = 6.130 PTO = 2318.333 PO = 136.333 R/PT = 2.941 Q = 594.778

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.0892	.1516	.2224
.250	-.1288	-.0873	
.362	-.0865		
.400		-.1441	
.419	-.1650		
.550	-.1611	-.1716	
.600			-.1284
.697	-.1342		
.700		-.1829	
.725	-.1629		
.750		-.1704	
.806	-.1692		
.832	-.0987		
.850		-.1635	
.900	-.1329		-.1594
.951	-.1371		
.966	-.0303		

MACH (1) = 2.498 ALPHA (9) = 6.110

PTO = 2318.333

PO = 136.333

R/PT = 2.941

Q = 594.778

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.0791	.1330	.1973
.250	-.1324	-.0990	
.362	-.0931		
.400		-.1480	
.419	-.1669		
.550	-.1847	-.1754	
.600			-.1339
.697	-.1447		
.700		-.1809	
.725	-.1642		
.750		-.1723	
.806	-.1828		
.832	-.1237		
.850		-.1661	
.900	-.1534		-.1652
.951	-.1825		
.966	-.0345		

AVES 87-710 IA12C 01 T1 S4 UPPER WING PRESSURE (UB2075) (16 APR 74)

REFERENCE DATA

SRF = 2690.0000 SQ.FT. XWRP = 953.0000 IN.
 LREF = 1328.0000 IN. YWRP = .0000 IN.
 BRP = 1328.0000 IN. ZWRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 2.498 ALPHA (1) = -7.950 PTO = 2309.444 PO = 136.000 R/FT = 2.923 Q = 992.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.2823	.3514		.3947
.250			.0045		.0322	
.362	.0363					
.400				-.0456		
.419		-.0366				
.550			-.0662	-.0818		
.600						-.0667
.697	-.0309					
.700				-.1053		
.725			-.0971			
.750					-.1026	
.806		-.0194				
.832	.0287			-.1009		
.850			-.0102			-.0664
.900						
.951		.0644				
.966	.0907					

MACH (1) = 2.498 ALPHA (2) = -9.860 PTO = 2309.444 PO = 136.000 R/FT = 2.923 Q = 992.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.2347	.3003		.3555
.250			-.0260		.0130	
.362	.0064					
.400				-.0753		
.419		-.0665				
.550			-.1066	-.1025		
.600						-.0632
.697	-.0906					
.700				-.1261		
.725			-.1166			
.750						-.1163
.806		-.0435				
.832	.0046					

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 67-710 1A12C ON T1 94 UPPER WING PRESSURE (LB/2073)

MACH (1) = 2.498 ALPHA (2) = -5.860

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
.850
.900
.951
.996
-1.206
-.0365
.0299
.0816
-1.069

MACH (1) = 2.498 ALPHA (3) = -3.860 PTO = 2309.444 PO = 136.000 R/PT = 2.923 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
.090
.250
.362
.400
.419
.550
.600
.697
.700
.725
.750
.808
.832
.850
.900
.931
.966
.1975
.2407
-.0593
-.0108
-.0970
-.0854
-.1291
-.1209
-.1338
-.1397
-.1326
-.0626
-.0162
-.0562
-.1362
-.1207
-.0947
-.0861
-.0541

MACH (1) = 2.498 ALPHA (4) = -1.860 PTO = 2309.444 PO = 136.000 R/PT = 2.923 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
.090
.250
.362
.400
.419
.550
.600
.697
.1742
.1966
-.0696
-.0570
-.1058
-.1450
-.1371
-.1076
-.0471



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

(LB/2073)

AVES 87-710 1A12C OR T1 S4 UPPER WING PRESSURE

MACH (1) = 2.498 ALPHA (4) = -1.060

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6730 .7800 .8870

X/C

.700						
.725						
.750						
.806						
.832						
.890						
.900						
.921						
.966						

MACH (1) = 2.498 ALPHA (5) = .150 PTO = 2205.444 PO = 136.000 R/PT = 2.923 Q = 592.596

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6730 .7800 .8870

X/C

.090						
.290						
.362						
.400						
.419						
.590						
.600						
.697						
.700						
.725						
.750						
.806						
.832						
.890						
.900						
.921						
.966						

DATE 05 DEC 74

TABULATED SOURCE DATA - (A12C (WING PRESSURES))

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MACH (1) = 2.498 ALPHA (6) = 2.140 PTO = 2309.444 PO = 136.000 R/PY = 2.923 Q = 592.556
 ASES 87-710 (A12C 01 T1 S4 UPPER WING PRESSURE (UB2073))

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050	.0930	.1905	.2708
.250	-.1145	-.0852	
.362	-.0751		
.400		-.1326	
.419	-.1392		
.550	-.1717	-.1627	
.600			-.1171
.697	-.1158		
.700		-.1790	
.725	-.1637		
.750		-.1599	
.806	-.1213		
.832	-.0715		
.850		-.1716	
.900	-.1302		-.1456
.951	-.0737		
.966	-.0136		

MACH (1) = 2.498 ALPHA (7) = 4.180 PTO = 2309.444 PO = 136.000 R/PY = 2.923 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050	.1035	.1669	.2465
.250	-.1264	-.0780	
.362	-.0791		
.400		-.1385	
.419	-.1533		
.550	-.1615	-.1665	
.600			-.1226
.697	-.1217		
.700		-.1806	
.725	-.1669		-.1646
.750			
.806	-.1380		
.832	-.0659		
.850		-.1694	
.900	-.1561		-.1549
.951	-.0977		
.966	-.0240		

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AVES 87-710 1A12C OI T1 S4 UPPER WING PRESSURE (LB/2073)

MACH (1) = 2.498 ALPHA (8) = 5.160 PTO = 2309.444 PO = 136.000 R/PT = 2.923 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.0895	.1498		.2204
.250			-.1301		-.0676	
.362	-.0683					
.400				-.1450		
.419		-.1634				
.590			-.1825	-.1721		
.600						-.1289
.697	-.1342					
.700				-.1826		
.725			-.1678			
.750					-.1689	
.806		-.1684				
.832	-.0990			-.1642		
.850			-.1568			-.1592
.900						
.951		-.1378				
.966	-.0301					

MACH (1) = 2.498 ALPHA (9) = 8.180 PTO = 2309.444 PO = 136.000 R/PT = 2.923 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.0786	.1308		.1952
.250			-.1342		-.0991	
.362	-.0920					
.400				-.1488		
.419		-.1661				
.590			-.1863	-.1768		
.600						-.1348
.697	-.1437					
.700				-.1823		
.725			-.1669			
.750					-.1752	
.806		-.1813				
.832	-.1246					
.850				-.1677		-.1664
.900			-.1567			
.951		-.1636				
.966	-.0346					



DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES) (UB2074) (18 APR 74)

AVES 87-710 1A12C OF T1 54 UPPER WING PRESSURE

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 933.0000 IN.
 LREF = 1328.0000 IN. YMRP = .0000 IN.
 SREF = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CPR = 28.860 SWMRP = .768
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.002 ALPHA (1) = -7.930 PTO = 2307.111 PO = 62.667 R/FT = 2.235 Q = 394.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.030 .2691 .3670 .3930
 .250 .0187 .0606
 .362 .0400 .0187
 .400 .0243 .0187
 .419 .0243 .0187
 .550 .0243 .0187
 .600 .0243 .0187
 .697 .0240 .0187
 .700 .0240 .0187
 .725 .0240 .0187
 .750 .0240 .0187
 .806 .0240 .0187
 .832 .0240 .0187
 .850 .0240 .0187
 .900 .0240 .0187
 .951 .0240 .0187
 .966 .0240 .0187

MACH (1) = 3.002 ALPHA (2) = -5.960 PTO = 2307.111 PO = 62.667 R/FT = 2.235 Q = 394.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .2345 .3269 .3555
 .250 .0079 .0406
 .362 .0143 .0327
 .400 .0459 .0327
 .419 .0459 .0327
 .550 .0459 .0327
 .600 .0459 .0327
 .697 .0373 .0327
 .700 .0373 .0327
 .725 .0373 .0327
 .750 .0373 .0327
 .806 .0373 .0327
 .832 .0373 .0327

(LB 2074)

AMES 87-710 1A12C 01 T1 S4 UPPER WING PRESSURE

MACH (1) = 3.002 ALPHA (2) = -5.960

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7800 .8870

X/C

.890
.900
.951
.966
.0369
-0.0908
-0.0481
-0.0015
-0.0665

MACH (1) = 3.002 ALPHA (3) = -3.870 PTO = 2507.111 PO = 62.667 R/PT = 2.235 Q = 394.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7800 .8870

X/C

.090
.290
.362
.400
.419
.550
.600
.697
.700
.725
.750
.806
.832
.890
.900
.951
.966
.0197
.2022
-0.0254
-0.0093
-0.0816
-0.0904
-0.0830
-0.0998
-0.0841
-0.0885
-0.0343
-0.0719
-0.1013
-0.0688
-0.0756
-0.0256
-0.0773
-0.0234
-0.0468
-0.0637

MACH (1) = 3.002 ALPHA (4) = -1.930 PTO = 2507.111 PO = 62.667 R/PT = 2.235 Q = 394.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7800 .8870

X/C

.090
.290
.362
.400
.419
.550
.600
.697
-0.0704
-0.0751
-0.1011
-0.0886
-0.0585
-0.0253
-0.0253
-0.0533
-0.03407
-0.0365

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB 2074)

AVES 67-710 1A12C OI T1 S4 UPPER WING PRESSURE

MACH (1) = 3.002 ALPHA (4) = -1.930

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7800 .8870

X/C

.700 -.1066
 .725 -.0896
 .750 -.0886
 .808 -.0849
 .832 -.0535
 .850 -.1077
 .900 -.0664
 .931 -.0471
 .966 -.0083

-.0676

MACH (1) = 3.002 ALPHA (5) = .060 PTO = 2207.111 PO = 62.987 R/PT = 2.235 Q = 394.899

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7800 .8870

X/C

.080 .1920 .2231 .3165
 .290 -.0579 -.0164
 .362 -.0444
 .400 -.0904
 .419 -.0683
 .550 -.1097 -.0962
 .600 -.0411
 .697 -.0823
 .700 -.1136
 .725 -.0936
 .750 -.0940
 .808 -.0864
 .832 -.0666
 .850 -.1127
 .900 -.0859
 .931 -.0644
 .966 -.0226

-.0937

WACH (1) = 3.002 ALPHA (6) = 2.090 PTO = 2307.111 PO = 62.667 R/PT = 2.235 Q = 394.689
(LB/2074)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.1106	.2030		.2684
.250			-.0655		-.0329	
.362	-.0566					
.400			-.0699			
.419		-.0964				
.550			-.1104	-.1059		
.600						-.0487
.697	-.0906					
.700				-.1196		
.725			-.0669			
.750					-.1009	
.806	-.1076					
.832	-.0773			-.1163		
.890			-.1023			-.1009
.900						
.951		-.0624				
.966	-.0336					

WACH (1) = 3.002 ALPHA (7) = 4.050 PTO = 2307.111 PO = 62.667 R/PT = 2.235 Q = 394.689

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.0941	.1904		.2712
.250			-.0722		-.0404	
.362	-.0690					
.400			-.0734			
.419		-.1083				
.550			-.1226	-.1092		
.600						-.0523
.697	-.0960					
.700			-.1200			
.725			-.0960			
.750					-.1053	
.806	-.1196					
.832	-.0816					
.890			-.1169			
.900						-.1056
.951		-.1031				
.966	-.0402					

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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 113

MACH (1) = 3.002 ALPHA (8) = 6.140 PTD = 2307.111 PO = 62.667 R/PT = 2.235 Q = 394.869
 (UB2074)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090	.1091	.1694	.2400
.290	-.0716	-.0544	
.362	-.0739		
.400		-.0769	
.419	-.1140		
.550	-.1256	-.1119	
.600			-.0986
.697	-.1033		
.700		-.1209	
.725	-.0996		-.1087
.790			
.806	-.1267		
.832	-.0975		
.850		-.1196	
.900	-.1119		-.1113
.951	-.1233		
.966	-.0453		

MACH (1) = 3.002 ALPHA (9) = 8.100 PTD = 2307.111 PO = 62.667 R/PT = 2.235 Q = 394.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090	.0990	.1903	.2176
.290	-.0756	-.0659	
.362	-.0765		
.400		-.0605	
.419	-.1156		
.550	-.1262	-.1166	
.600			-.0657
.697	-.1063		
.700		-.1227	
.725	-.0993		-.1102
.750			
.806	-.1267		
.832	-.1106		
.850		-.1216	
.900	-.1146		-.1164
.951	-.1201		
.966	-.0544		

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TABULATED SOURCE DATA - (A12C WING PRESSURES)

PAGE 114

AVES 07-710 A12C ON T1 54 UPPER WING PRESSURE (LB/2075) (16 APR 74)

REFERENCE DATA

SREF = 2000.0000 SQ.FT. WREF = 953.0000 IN.
 LREF = 1326.0000 IN. WREF = .0000 IN.
 BREF = 1326.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 G1-4AL = 1.000 RUDDER = .000

MAC (1) = 3.002 ALPHA (1) = -7.910 PTO = 2512.333 PO = 63.000 R/PY = 2.239 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7600	.8870
X/C						
.050			.2666	.3640	.3695	
.250			.0164	.0588		
.362	.0365					
.400						
.419						
.550						
.600						
.697						
.700						
.725						
.750						
.806						
.832						
.850						
.900						
.951						
.966						

MAC (1) = 3.002 ALPHA (2) = -5.660 PTO = 2512.333 PO = 63.000 R/PY = 2.239 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7600	.8870
X/C						
.050			.2327	.3252	.3514	
.250						
.362	.0118					
.400						
.419						
.550						
.600						
.697						
.700						
.725						
.750						
.806						
.832						

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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE

MACH (1) = 3.002 ALPHA (6) = 2.120 PTD = 2312.333 PO = 63.000 R/PT = 2.239 Q (LB/2075)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6730 .7800 .8870

X/C

.050 .1189 .2048 .2894
.250 -.0638 -.0299
.362 -.0564 -.0685
.400 -.0949 -.1188 -.1047
.419 -.0453
.500 -.1194
.600 -.1050
.697 -.1053
.700 -.1144
.725 -.1054
.750 -.1093
.806 -.1053
.832 -.1144
.850 -.1054
.900 -.1093
.951 -.1093
.966 -.0315

MACH (1) = 3.002 ALPHA (7) = 4.110 PTD = 2312.333 PO = 63.000 R/PT = 2.239 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6730 .7800 .8870

X/C

.050 .1028 .1903 .2682
.250 -.0688 -.0417
.362 -.0724 -.0739
.400 -.1053 -.1101
.419 -.0550
.500 -.1230
.600 -.1079
.697 -.1204
.700 -.1208
.725 -.1144
.750 -.1064
.806 -.1064
.832 -.1064
.850 -.1064
.900 -.1064
.951 -.1064
.966 -.1064

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OF POOR QUALITY

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-710 1A12C 01 T1 S4 UPPER WING PRESSURE (LBZ075)

MACH (1) = 3.002 ALPHA (8) = 6.130 PTO = 2312.333 PO = 63.000 R/FT = 2.239 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.1110	.1696		.2395
.250			-.0708		-.0549	
.362	-.0770					
.400			-.0739			
.419		-.1121				
.590			-.1232	-.1104		
.600						-.0586
.697	-.1017					
.700			-.1237			
.725			-.1076		-.1086	
.750						
.806		-.1250				
.832	-.0976		-.1201			
.850						-.1102
.900		-.1147				
.951	-.1254					
.966	-.0455					

MACH (1) = 3.002 ALPHA (9) = 6.110 PTO = 2312.333 PO = 63.000 R/FT = 2.239 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.0926	.1499		.2159
.250			-.0758		-.0650	
.362	-.0767					
.400			-.0807			
.419		-.1161				
.590			-.1265	-.1162		
.600						-.0654
.697	-.1075					
.700			-.1222			
.725			-.1111		-.1129	
.750						
.806		-.1300				
.832	-.1100					
.850			-.1226			
.900		-.1167				-.1170
.951	-.1250					
.966	-.0559					

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OF POOR QUALITY



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AWES 87-710 1A12C 01 T1 S4 UPPER WING PRESSURE (US-2076) (16 APR 74)

PARAMETRIC DATA

BETA = .000 POWER = 1.000
OPR = 23.860 SRMTR = .826
GIMBAL = 1.000 RUDDER = .000

REFERENCE DATA

SREF = 8890.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190 SCALE

MACH (1) = 3.499 ALPHA (1) = -7.800 PTO = 2304.300 PO = 30.000 R/PT = 1.736 Q = 259.530

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
.090 .2644 .3725 .4087
.290 .0428 .0813
.362 .0439 .0257
.400 .0257
.419 -.0116
.550 -.0401 -.0239 .0424
.600
.697 -.0123
.700
.725 -.0359
.750
.806 -.0392
.832 -.0086
.850
.900
.951 -.0354
.966 .0537

MACH (1) = 3.499 ALPHA (2) = -5.800 PTO = 2304.300 PO = 30.000 R/PT = 1.736 Q = 259.500

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
.090 .2384 .3346 .3781
.290 .0230 .0405
.362 .0237 .0096
.400
.419 -.0258
.550 -.0328 -.0391 .0294
.600
.697 -.0258
.700
.725 -.0369
.750
.806 -.0473
.832 -.0241

AWES 07-710 1A12C 01 T1 S4 UPPER WING PRESSURE (UB2076)

MACH (1) = 3.499 ALPHA (2) = -5.800

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090						
.290						
.362						
.400						
.419						
.550						
.600						
.697						
.700						
.725						
.750						
.806						
.832						
.850						
.900						
.951						
.966						

-0.0378

-0.0410

-0.0236

0.0281

-0.0392

MACH (1) = 3.499 ALPHA (3) = -3.750 PTO = 2504.300 PO = 30.000 R/FT = 1.736 Q = 259.500

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090						
.290						
.362						
.400						
.419						
.550						
.600						
.697						
.700						
.725						
.750						
.806						
.832						
.850						
.900						
.951						
.966						

0.1966

0.0044

-0.0023

-0.0413

-0.0609

-0.0497

-0.0660

-0.0409

-0.0518

-0.0392

0.0071

0.3979

0.0303

-0.0023

-0.0437

-0.0660

-0.0437

-0.0660

-0.0437

-0.0660

-0.0437

-0.0660

-0.0437

-0.0660

-0.0437

-0.0660

-0.0437

-0.0660

-0.0437

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-0.0660

-0.0437

-0.0660

-0.0437

-0.0660

-0.0437

-0.0660

-0.0437

-0.0660

MACH (1) = 3.499 ALPHA (4) = -1.800 PTO = 2504.300 PO = 30.000 R/FT = 1.736 Q = 259.500

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090						
.290						
.362						
.400						
.419						
.550						
.600						
.697						

0.1690

0.2173

-0.0071

-0.0056

-0.0109

-0.0524

-0.0663

-0.0542

0.0119

0.3599

-0.0056

-0.0109

-0.0524

-0.0663

-0.0542

0.0119

0.0119

0.0119



AVES 87-710 1A12C ON T1 94 UPPER WING PRESSURE (LB/2076)

MACH (1) = 3.498 ALPHA (4) = -1.800

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.700					
.725			-.0718		
.750			-.0405		
.806				-.0554	
.832			-.0683		
.850			-.0513		
.900				-.0712	
.951			-.0553		-.0562
.966			-.0519		
			-.0102		

MACH (1) = 3.495 ALPHA (5) = .200 PTO = 2504.300 PO = 30.000 R/PT = 1.756 Q = 259.900

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050					
.250			.1431	.2156	.3347
.362			-.0163		-.0015
.400				-.0151	
.419			-.0370		
.550			-.0750	-.0604	
.600					.0092
.697					
.700				-.0750	
.725			-.0457		-.0566
.750					
.806			-.0719		
.832			-.0603		
.850				-.0702	
.900			-.0637		-.0600
.951			-.0614		
.966			-.0095		

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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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NSES 87-710 1A12C O1 T1 94 UPPER WING PRESSURE (UB2078)

MACH (1) = 3.499 ALPHA (6) = 2.190 PTO = 2304.300 PO = 30.000 R/FT = 1.736 Q = 259.500

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.1192	.2082	.2896
.250	-.0283	-.0142	
.362	-.0398		
.400		-.0207	
.419	-.0600		
.550	-.0603	-.0667	
.600			-.0023
.697	-.0694		
.700		-.0723	
.725	-.0459		
.750		-.0536	
.806	-.0642		
.832	-.0732		
.850		-.0706	
.900	-.0633		-.0623
.951	-.0716		
.966	.0117		

MACH (1) = 3.499 ALPHA (7) = 4.180 PTO = 2304.300 PO = 30.000 R/FT = 1.736 Q = 259.500

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.0881	.1983	.2840
.250	-.0349	-.0247	
.362	-.0457		
.400		-.0236	
.419	-.0632		
.550	-.0817	-.0693	
.600			-.0052
.697	-.0751		
.700		-.0687	
.725	-.0459		-.0562
.750			
.806	-.0649		
.832	-.0769		
.850		-.0714	
.900	-.0662		-.0661
.951	-.0737		
.966	-.0006		



AMES 87-710 (A120 ON TI 54 UPPER WING PRESSURE) (UB2076)

MACH (1) = 3.499 ALPHA (8) = 6.230 PTO = 2304.300 PO = 30.000 R/FT = 1.736 Q = 259.500

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050	.1077	.1770		.2409	
.250	-.0338		-.0328		
.362	-.0550				
.400		-.0291			
.419	-.0740				
.550		-.0622	-.0682		
.600				-.0113	
.697	-.0817				
.700		-.0704			
.725	-.0519		-.0557		
.750					
.806	-.0914				
.832	-.0822		-.0693		
.850		-.0720		-.0634	
.900					
.951	-.0764				
.966	-.0202				

MACH (1) = 3.499 ALPHA (9) = 8.280 PTO = 2304.300 PO = 30.000 R/FT = 1.736 Q = 259.500

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050	.0987	.1565		.2229	
.250	-.0375		-.0360		
.362	-.0538				
.400		-.0519			
.419	-.0799				
.590		-.0783	-.0614		
.600				-.0119	
.65	-.0631				
.700		-.0653			
.725		-.0472		-.0578	
.750					
.806	-.0814				
.832	-.0842		-.0689		
.850		-.0718		-.0637	
.900					
.951	-.0788				
.966	-.0508				



AVES 87-710 1A12C 01 T1 S4 UPPER WING PRESSURE (UB2077) (16 APR 74)

REFERENCE DATA

XREF = 2890.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.499 ALPHA (1) = -7.750 PTO = 2512.556 PO = 30.000 R/PT = 1.749 Q = 280.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090			.2834	.3730		.4043
.290			.0415		.0702	
.362	.0368					
.400				.0239		
.419		-.0146				
.550			-.0413	-.0278		
.800					.0373	
.697	-.0166					
.700				-.0229		
.725		-.0474				
.750					-.0267	
.806		-.0413				
.832	-.0124					
.850			-.0594			-.0316
.900		-.0404				
.931		-.0084				
.986	.0480					

MACH (1) = 3.499 ALPHA (2) = -5.760 PTO = 2512.556 PO = 30.000 R/PT = 1.749 Q = 280.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090			.2376	.3316		.3743
.290			.0224		.0408	
.362	.0803					
.400				.0103		
.419		-.0266				
.550			-.0506	-.0393		
.800					.0275	
.697	-.0255					
.700				-.0594		
.725		-.0512				
.750					-.0371	
.806		-.0469				
.832	-.0236					



AMES 87-710 1A12C OL T1 94 UPPER WING PRESSURE (UB2077)

MACH (1) = 3.499 ALPHA (4) = -1.770

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.700					
.725					
.750					
.808					
.832					
.890					
.900					
.951					
.966					

MACH (1) = 3.499 ALPHA (5) = .280 PTO = 2312.556 PO = 30.000 R/FY = 1.749 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.030					
.290					
.362					
.400					
.419					
.590					
.600					
.697					
.700					
.725					
.750					
.808					
.832					
.890					
.900					
.951					
.966					



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AVES 87-710 (4120 ON TI 54 SPHER WING PRESSURE (LB/2077)

MACH (1) = 3.496 ALPHA (6) = 2.240 PTO = 2312.556 PO = 30.000 R/FT = 1.749 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .1176 .2105 .2859
 .290 -.0250 -.0132
 .362 -.0430
 .400 -.0208
 .419 -.0713
 .550 -.0795 -.0654
 .600 -.0008
 .697 -.0697
 .700 -.0785
 .725 -.0667
 .750 -.0627
 .806 -.0649
 .832 -.0729
 .850 -.0801
 .900 -.0736
 .951 -.0816
 .966 -.0672

MACH (1) = 3.496 ALPHA (7) = 4.240 PTO = 2312.556 PO = 30.000 R/FT = 1.749 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .1042 .1928 .2619
 .290 -.0309 -.0264
 .362 -.0549
 .400 -.0251
 .419 -.0762
 .550 -.0836 -.0706
 .600 -.0067
 .697 -.0756
 .700 -.0834
 .725 -.0696
 .750 -.0692
 .806 -.0666
 .832 -.0605
 .850 -.0626
 .900 -.0801
 .951 -.0696
 .966 -.0484

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURES

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AVES 07-710 1A12C 01 T1 94 UPPER WING PRESSURE (LB/2077)

MACH (1) = 3.499 ALPHA (8) = 6.270 PTD = 2312.556 PO = 30.000 R/P = 1.749 Q = 260.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.1122	.1766	.2348
.290	-.0332	-.0371	
.382	-.0847		
.400		-.0279	
.419	-.0854		
.590	-.0644	-.0725	
.600			-.0149
.697	-.0822		
.700		-.0861	
.725	-.0703		
.790		-.0714	
.806	-.0974		
.832	-.0665	-.0663	
.890			-.0770
.920	-.0801		
.951	-.0991		
.966	-.0522		

MACH (1) = 3.499 ALPHA (9) = 6.300

PTD = 2312.556 PO = 30.000 R/P = 1.749 Q = 260.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.1008	.1540	.2148
.290	-.0359	-.0431	
.382	-.0842		
.400		-.0322	
.419	-.0843		
.590	-.0667	-.0747	
.600			-.0204
.697	-.0827		
.700		-.0861	
.725	-.0730		
.790		-.0758	
.806	-.0952		
.832	-.0803	-.0667	
.890	-.0856		-.0402
.920			
.951	-.0965		
.966	-.0460		

AVES 87-710 1A12 IS TI SI UPPER WING PRESSURE (J2078) (10 APR 74)

REFERENCE DATA

REF = 890.0000 SQ.FT. WPP = 993.0000 IN.
 REF = 1328.0000 IN. WPP = 1000.0000 IN.
 REF = 1328.0000 IN. WPP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CTR = 31.260 SCPR = .916
 GIMBAL = 1.000 PLODER = .000

MACH (1) = 2.498 ALPHA (1) = -7.830 PTO = 2313.100 PO = 135.800 P/FT = 2.989 Q = 593.800

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.2833	.3522		.3948
.290			.1080		.0284	
.362		.0412				
.400				-.0482		
.419			-.0369			
.590				-.0824	-.0857	
.600						-.0671
.697		-.0281				
.700				-.1131		
.725				-.0998		
.750					-.1087	
.806			-.0160			
.832		.0319		-.1046		
.890						-.0649
.900			-.0134			
.951			.0682			
.966		.0943				

MACH (1) = 2.498 ALPHA (2) = -5.830 PTO = 2313.100 PO = 135.800 R/FT = 2.989 Q = 593.800

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.2354	.2988		.3582
.290			-.0238		.0098	
.362		.0069				
.400				-.0793		
.419			-.0837			
.590				-.1054	-.1069	
.600						-.0825
.697		-.0489				
.700				-.1309		
.725			-.1185			
.750						-.1224
.806						
.832		-.0407				
.890						

DATE 13 DEC 74 T. DATE SOURCE 1000 - 1000 (WING PRESSURES)
(0.2076)

INCS 01-110 11120 05 11 51 UPPER WING PRESSURE

MACH (1) = 2.498 ALPHA (4) = -1.95

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.700 -.1575
.725 -.1464
.750 -.1506
.806 -.0797
.832 -.10377
.850 -.1549
.900 -.0764
.951 -.1326
.966 -.0076
.0202

MACH (1) = 2.498 ALPHA (5) = .150 PTO = 2313.100 PO = 135.800 R/FT = 2.909 Q = 593.800

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .1428 .2051 .3002
.250 -.1099
.362 -.1267
.400 -.1251
.419 -.1562
.550 -.1559
.600 -.1071
.697 -.1016
.700 -.1741
.725 -.1564
.750 -.1588
.806 -.1005
.832 -.0990
.850 -.1744
.900 -.0685
.951 -.1397
.966 -.0366
.0031

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

(UB2078)

AVES 87-710 1A12C OS T1 S1 UPPER WING PRESSURE

MACH (1) = 2.498 ALPHA (6) = 2.110 PTO = 2313.100 PO = 135.800 R/FT = 2.989 Q = 593.800

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.0963	.1875	.2718
.250	-.1132	-.0877	
.362	-.0714		
.400		-.1378	
.419			
.550	-.1382	-.1681	
.600	-.1707		-.1143
.697	-.1134		
.700		-.1839	
.725	-.1665		
.750		-.1836	
.808	-.1182		
.832	-.0690	-.1787	
.850		-.1358	-.1436
.900	-.0695		
.951	-.0101		
.966			

MACH (1) = 2.498 ALPHA (7) = 4.180 PTO = 2313.100 PO = 135.800 R/FT = 2.989 Q = 593.800

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.1060	.1662	.2479
.250	-.1279	-.0832	
.362	-.0794		
.400		-.1427	
.419			
.550	-.1518	-.1703	
.600	-.1808		-.1215
.697	-.1237		
.700		-.1859	
.725	-.1696		
.750		-.1703	
.808	-.1377		
.832	-.0842	-.1748	
.850		-.1546	
.900	-.1602		
.951	-.0865		
.966	-.0841		



DATE 05 DEC 74 TABULATED SOURCE DATA - (A121 WING PRESSURES)

ALPS 47-710 14121 03 T1 S1 UPPER WING PRESSURE (UB2078)

MACH (1) = 2.498 ALPHA (8) = 6.140 PTO = 2313.100 PO = 135.800 R/FT = 2.989 Q = 593.800

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7800	.8870
X/C						
.050			.0898	.1482		.2222
.250			-.1294		-.0923	
.362	-.0864					
.400				-.1483		
.419		-.1640				
.550			-.1817	-.1787		
.600						-.1272
.697	-.1339					
.703				-.1869		
.725			-.1668		-.1755	
.750						
.806		-.1695				
.832	-.0991			-.1698		
.850			-.1579		-.1596	
.900		-.1387				
.951						
.966	-.0299					

MACH (1) = 2.498 ALPHA (9) = 8.150 PTO = 2313.100 PO = 135.800 R/FT = 2.989 Q = 593.800

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7800	.8870
X/C						
.050			.0785	.1276		.1972
.250			-.1352		-.1050	
.362	-.0940					
.400				-.1535		
.419		-.1683				
.550			-.1847	-.1817		
.600						-.1339
.697	-.1467					
.700				-.1883		
.725			-.1715			
.750					-.1784	
.806		-.1912				
.832	-.1249			-.1732		
.850			-.1615			-.1647
.900						
.951		-.1629				
.966	-.0359					

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

DATE 03 DEC 74

(LB2079) (16 APR 74)

AVES 87-710 1A12C CB T1 S1 UPPER WING PRESSURE

REFERENCE DATA

SREF = 2990.0000 SQ.FT. XMRP = 933.0000 IN.
 LREF = 1328.0000 IN. YMRP = .0000 IN.
 BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

BETA = .000 POWER = 1.000
 CTR = 28.860 SC4PR = .768
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.003 ALPHA (1) = -7.920 PTO = 2295.778 PO = 62.000 R/PT = 2.247 Q = 392.667

SECTION (1) ORBITTER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .090 .2721 .3598 .3964
 .250 .0188 .0519
 .362 .0397
 .400 .0243
 .419 .0220
 .430 .0588 .0635
 .600 .0064
 .697 .0224
 .700 .0868
 .725 .0720
 .750 .0691
 .806 .0292
 .832 .0090
 .850 .0875
 .900 .0384
 .951 .0235
 .966 .0626
 .0562

MACH (1) = 3.003 ALPHA (2) = -9.910 PTO = 2295.778 PO = 62.000 R/PT = 2.247 Q = 392.667

SECTION (1) ORBITTER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .090 .2380 .3210 .3579
 .250 .0038 .0324
 .362 .0140
 .400 .0421
 .419 .0441
 .430 .0731 .0795
 .600 .0360
 .697 .0360
 .700 .0994
 .725 .0836
 .750 .0796
 .806 .0469
 .932 .0112
 .0155
 .0796

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A120 (WING PRESSURES)

(LBZ079)

AMES 87-710 1A120 03 T1 S1 UPPER WING PRESSURE

MACH (1) = 3.003 ALPHA (2) = -5.910

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.850
.900
.951
.966
-1.012
-.0576
-.0018
.0368
-.0663

MACH (1) = 3.003 ALPHA (3) = -3.890 PTO = 2295.778 PO = 62.000 R/PT = 2.247 Q = 392.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.050
.250
.362
.400
.419
.550
.600
.697
.700
.725
.750
.806
.832
.850
.900
.951
.966
.2048
-.0230
-.0538
-.0590
-.0882
-.0912
-.1085
-.0941
-.1096
-.0811
-.0241
.0206
.2616
.0176
-.0538
-.0590
-.0882
-.0912
-.1085
-.0941
-.1096
-.0811
-.0241
.0206
.3680
.0176
-.0538
-.0590
-.0882
-.0912
-.1085
-.0941
-.1096
-.0811
-.0241
.0206
-.0637

MACH (1) = 3.003 ALPHA (4) = -1.890 PTO = 2295.778 PO = 62.000 R/PT = 2.247 Q = 392.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.050
.250
.362
.400
.419
.550
.600
.697
.700
.725
.750
.806
.832
.850
.900
.951
.966
.1784
.2131
-.0377
-.0321
-.0567
-.0734
-.0983
-.0973
-.0340
-.0676

DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(UB 2079)

AVES 87-710 1A12C C8 T1 S1 UPPER WING PRESSURE

MACH (1) = 3.003 ALPHA (4) = -1.890

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.700 -.1136
 .725 -.0988
 .750 -.0973
 .808 -.0710
 .832 -.0536
 .850 -.1161
 .900 -.0955
 .951 -.0873
 .966 -.0442
 -.0027

MACH (1) = 3.003 ALPHA (5) = .110 FPO = 2293.778 PO = 62.000 R/PT = 2.247 Q = 392.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .1543 .2163 .3201
 .250 -.0557 -.0244
 .362 -.0434
 .400 -.0877
 .419 -.0846
 .550 -.1066 -.1063
 .600 -.0358
 .697 -.0781
 .700 -.1222
 .725 -.1027
 .750 -.1020
 .806 -.0940
 .832 -.0829
 .850 -.1211
 .900 -.1020
 .951 -.0913
 .966 -.0618
 -.0196



DATE 05 DEC 74

TABULATED SOURCE DATA - (AIR WING PRESSURES)

PAGE 137

AVES 44-710 1A100 00 T1 S1 UPPER WING PRESSURE (LB/2079)

MACH (1) = 3.003 ALPHA (1) = 2.112 PTO = 2295.778 PO = 62.000 R/PT = 2.247 Q = 392.667

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.1157	.1972	.2903
.250	-.0635	-.0391	
.362	-.0370		
.400		-.0770	
.419	-.0957		
.530	-.1177	-.1127	
.600			-.0480
.697	-.0692		
.700		-.1272	
.725	-.1034		
.750			-.1084
.806	-.1051		
.832	-.0765		
.850		-.1261	
.900	-.1109		-.1002
.931	-.0823		
.966	-.0324		

MACH (1) = 3.003 ALPHA (7) = 4.090 PTO = 2295.778 PO = 62.000 R/PT = 2.247 Q = 392.667

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.0979	.1840	.2714
.250	-.0683	-.0482	
.362	-.0662		
.400		-.0808	
.419	-.1017		
.530	-.1205	-.1181	
.600			-.0490
.697	-.0951		
.700		-.1286	
.725	-.1072		
.750			-.1123
.806	-.1143		
.832	-.0861		
.850		-.1271	
.900	-.1195		-.1044
.931	-.1017		
.966	-.0372		

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 138

MACH (1) = 3.003 ALPHA (8) = 6.120 PTO = 2295.778 PO = 62.000 R/FT = 2.247 Q = 392.667
 (LBZ079)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.1113	.1614		.2419
.290			-.0688		-.0621	
.362	-.0717					
.400				-.0641		
.419		-.1110				
.590			-.1236	-.1205		
.600						-.0565
.697	-.0988					
.700				-.1298		
.725			-.1075			
.750					-.1189	
.906		-.1276				
.832	-.0941					
.850			-.1269			
.900		-.1205				-.1090
.951	-.1207					
.966	-.0415					

MACH (1) = 3.003 ALPHA (9) = 8.120 PTO = 2295.778 PO = 62.000 R/FT = 2.247 Q = 392.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.0953	.1415		.2183
.290			-.0718		-.0730	
.362	-.0759					
.400				-.0910		
.419		-.1137				
.590			-.1246	-.1243		
.600						-.0622
.697	-.1072					
.700				-.1286		
.725			-.1087			
.750					-.1171	
.906		-.1274				
.832	-.1094					
.850			-.1286			
.900		-.1232				-.1150
.951	-.1164					
.966	-.0526					



AVES 97-710 1A12C 08 11 S1 UPPER WING PRESSURE (082080) (16 APR 74)

REFERENCE DATA

SPR = 2690.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 QPR = 23.660 SPMR = .826
 GUMDAL = 1.000 RUDDER = .000

MACH (1) = 3.496 ALPHA (1) = -7.745 PTD = 2297.222 PO = 30.000 R/PT = 1.754 Q = 256.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .2825 .3645 .4105
 .290 .0437 .0599
 .362 .0147
 .400 .0147
 .419 -.0097
 .550 -.0386 -.0365
 .600 .0428
 .697 -.0108
 .700 -.0611
 .725 -.0491
 .806 -.0364
 .832 -.0075
 .850 -.0660
 .900 -.0513
 .951 -.0010
 .966 .0592
 -.0269

MACH (1) = 3.496 ALPHA (2) = -5.770 PTD = 2297.222 PO = 30.000 R/PT = 1.754 Q = 256.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .2567 .3196 .3757
 .290 .0209 .0246
 .362 .0198
 .400 -.0039
 .419 -.0294
 .550 -.0506 -.0531
 .600 .0266
 .697 -.0294
 .700 -.0734
 .725 -.0531
 .750 -.0520
 .806 -.0492
 .852 -.0256

DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 67-710 1A12C OB T1 S1 UPPER WING PRESSURE (UB208C)

MACH (1) = 3.496 ALPHA (4) = -1.75C

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.700 -.01800
 .725 -.0563
 .750 -.0690
 .806 -.0877
 .832 -.0902
 .850 -.0671
 .900 -.0706
 .951 -.0906
 .966 -.0576

MACH (1) = 3.496 ALPHA (5) = .25C PTO = 2297.222 PO = 30.000 R/F1 = 1.754 Q = 258.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .1437 .2062 .3330
 .290 -.0168 -.0159
 .362 -.0244
 .400 -.0295
 .419 -.0376
 .550 -.0732 -.0733
 .600 .0082
 .697 -.0606
 .700 -.0460
 .725 -.0616
 .750 -.0723
 .806 -.0732
 .832 -.0995
 .850 -.0460
 .900 -.0777
 .951 -.0806
 .966 -.0211

AMES 87-710 1A12C CD T1 S1 UPPER WING PRESSURE (LB/2000)

WACH (1) = 3.498 ALPHA (8) = .910 PTO = 2297.222 PO = 30.000 R/PY = 1.754 Q = 258.887

SECTION 11 (ORBITER WING) DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7400 .8870

X/C
 .090 .1140 .1950 .2887
 .250 -.0256 -.0290
 .362 -.0348
 .400 -.0861 -.0317
 .419 -.0787 -.0794
 .550
 .600 -.0017
 .697 -.0863
 .700 -.0878
 .725 -.0824
 .750 -.0745
 .808 -.0803
 .832 -.0716
 .850 -.0698
 .900 -.0805
 .945 -.0749
 .966 -.0653
 .988 -.0222

WACH (1) = 3.498 ALPHA (7) = 4.250 PTO = 2297.222 PO = 30.000 R/PY = 1.754 Q = 258.887

SECTION 11 (ORBITER WING) DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7400 .8870

X/C
 .090 .0992 .1816 .2851
 .250 -.0314 -.0420
 .362 -.0482
 .400 -.0392
 .419 -.0709
 .550 -.0825 -.0659
 .600 -.0037
 .697 -.0737
 .700 -.0925
 .725 -.0678
 .750 -.0749
 .808 -.0680
 .832 -.0788
 .850 -.0697
 .900 -.0897
 .945 -.0623
 .966 -.0324



DATE 04 DEC 74 TABULATED SOURCE DATA - 1412C WING PRESSURES

WING (1) = 3.498 ALPHA (P) = 6.212 BVC = 2297.222 PO = 30.000 R/PT = 1.754 Q = 258.667
 ASES 87-715 1412C 08 71 51 UPPER WING PRESSURE (P7060)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B	.8990	.4270	.5340	.6730	.7600	.8870
X/C						
.090			.1119	.1641		.2376
.230			-.0291		-.0478	
.362	-.0548					
.400				-.0424		
.419		-.0750				
.550			-.0821	-.0466		
.600						-.0147
.697	-.0610					
.700			-.0699			
.725			-.0669		-.0746	
.750						
.806	-.0697					
.832	-.0637			-.0866		
.850		-.0699			-.0682	
.900		-.0646				
.951						
.966	-.0296					

WING (1) = 3.498 ALPHA (S) = 6.240 PTC = 2297.222 PO = 30.000 R/PT = 1.754 Q = 258.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B	.8990	.4270	.5340	.6730	.7600	.8870
X/C						
.090			.0997	.1429		.2199
.230			-.0366		-.0548	
.362	-.0574					
.400				-.0449		
.419		-.0680				
.550			-.0642	-.0605		
.600						-.0166
.697	-.0625					
.700			-.0643			
.725			-.0657			
.750					-.0756	
.806	-.0952					
.832	-.0653			-.0836		
.850		-.0660			-.0697	
.900		-.0646				
.951						
.966	-.0568					

TABULATED SOURCE DATA - 1A12C WING PRESSURES

DATE 05 DEC 74

(UB-0081) (16 APR 74)

ANES 07-710 1A12C CB T1 S1 UPPER WING PRESSURE

REFERENCE DATA

SWEP = 2490.0000 SQ.FT. WARP = 953.0000 IN.
 LEWP = 1320.0000 IN. WARP = .0000 IN.
 RWEP = 1320.0000 IN. WARP = 400.0000 IN.
 SCALE = .0100 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 2.000
 SCALP = .020 C1MEAL = 1.000
 RUDDER = .000

MACH (1) = 3.498 ALPHA (1) = -7.750 PTO = 2291.000 PO = 30.000 P/FT = 1.749 Q = 258.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/C .2990 .4270 .5340 .6750 .7800 .8870

X/C .050 .2836 .3610 .4092
 .250 .0429 .0380
 .382 .0433 .0120
 .400 .0140
 .419 -.0140
 .550 -.0409
 .600 .0391
 .697 -.0134
 .700 -.0626
 .723 -.0523
 .750 -.0391
 .806 -.0319
 .832 -.0112
 .850 -.0692
 .900 -.0328
 .951 -.0013
 .966 .0531

MACH (1) = 3.498 ALPHA (2) = -5.750 PTO = 2291.000 PO = 30.000 P/FT = 1.749 Q = 258.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/C .2990 .4270 .5340 .6750 .7800 .8870

X/C .050 .2836 .3610 .4092
 .250 .0429 .0380
 .382 .0433 .0120
 .400 .0140
 .419 -.0140
 .550 -.0409
 .600 .0391
 .697 -.0134
 .700 -.0626
 .723 -.0523
 .750 -.0391
 .806 -.0319
 .832 -.0112
 .850 -.0692
 .900 -.0328
 .951 -.0013
 .966 .0531

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AMES 87-710 1A12C OS T1 S1 UPPER WING PRESSURE (LBZ081)

MACH (1) = 3.498 ALPHA (2) = -5.760

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.850
.900
.951
.966
.0230
-0.0221
-0.0828
-0.0771
-0.0394

MACH (1) = 3.498 ALPHA (3) = -3.740 PTO = 2291.000 PO = 30.000 R/FT = 1.749 Q = 258.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050
.250
.362
.400
.419
.550
.600
.697
.700
.725
.750
.806
.832
.850
.900
.951
.966
.0042
-0.0375
-0.0589
-0.0695
-0.0799
-0.0477
-0.0590
-0.0821
-0.0590
-0.0611
-0.0640
-0.0236
-0.0179
-0.0065
-0.1964
-0.0134
-0.3949

MACH (1) = 3.498 ALPHA (4) = -1.770 PTO = 2291.000 PO = 30.000 R/FT = 1.749 Q = 258.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050
.250
.362
.400
.419
.550
.600
.697
-0.0541
-0.0591
-0.0707
-0.0546
-0.0255
-0.0100
-0.1661
-0.2051
-0.0206
-0.3590
-0.0118

TABULATED SOURCE DATA - 1A12C WING PRESSURES

(LB2081)

DATE 05 DEC 74

AVES 87-710 1A12C OB T1 S1 UPPER WING PRESSURE

MACH (1) = 3.498 ALPHA (4) = -1.770

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2930 .4270 .5340 .6730 .7800 .8870

X/C .700 -.0896

.725 -.0642

.750 -.0697

.806 -.0707

.832 -.0846

.850 -.0901

.860 -.0769

.900 -.0574

.951 -.0154

.966 -.0154

-.0599

MACH (1) = 3.498 ALPHA (5) = .260 PTO = 2291.000 PO = 30.000 R/FT = 1.749 Q = 258.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C .090

.250 .1421

.262 .2097

.400 -.0245

.419 -.0263

.550 -.0655

.600 -.0783

.697 -.0800

.700 -.0906

.725 -.0857

.750 -.0794

.806 -.0861

.832 -.0890

.850 -.0801

.900 -.0689

.951 -.0306

.966 -.0306

.3291

-.0203

.0056

-.0740

-.0636



MACH (1) = 3.498 ALPHA (8) = 2.240 PTD = 2291.000 PO = 30.000 R/FT = 1.749 Q = 256.111
 (LB/2081)

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8670
X/C						
.090			.1194	.1942		.2871
.250			-.0265		-.0305	
.362	-.0406					
.400				-.0366		
.419		-.0721				
.550			-.0814	-.0910		
.600						-.0033
.697	-.0710					
.700				-.0931		
.725			-.0700			
.750					-.0799	
.806		-.0847				
.832	-.0754			-.0936		
.850			-.0854		-.0669	
.900		-.0803				
.951						
.966	-.0408					

MACH (1) = 3.498 ALPHA (7) = 4.260 PTD = 2291.000 PO = 30.000 R/FT = 1.749 Q = 256.111

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8670
X/C						
.090			.1037	.1793		.2808
.250			-.0309		-.0414	
.362	-.0479					
.400				-.0381		
.419		-.0759				
.550			-.0830	-.0859		
.600						-.0070
.697	-.0746					
.700				-.0941		
.725			-.0694		-.0799	
.750						
.806		-.0865				
.832	-.0814			-.0930		
.850			-.0919			-.0750
.900		-.0803				
.951						
.966	-.0468					

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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(LB2081)

AVES 87-710 1A12C 08 T1 S1 UPPER WING PRESSURE

MACH (1) = 3.498 ALPHA (8) = 6.250 PTO = 2291.000 PO = 30.000 R/FY = 1.749 Q = 256.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050	.1107	.1613	.2376
.250	-.0328	-.0499	
.362	-.0547		
.400		-.0444	
.419	-.0637		
.550	-.0859	-.0878	
.600			-.0145
.697	-.0804		
.700		-.0969	
.725	-.0756		
.750		-.0860	
.806	-.0924		
.832	-.0846		
.850		-.0966	
.900	-.0553		-.0768
.951	-.0935		
.966	-.0497		

MACH (1) = 3.498 ALPHA (9) = 8.280 PTO = 2291.000 PO = 30.000 R/FY = 1.749 Q = 256.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050	.0964	.1431	.2184
.250	-.0365	-.0591	
.362	-.0601		
.400		-.0449	
.419	-.0660		
.550	-.0831	-.0887	
.600			-.0220
.697	-.0842		
.700		-.0953	
.725	-.0717		
.750		-.0659	
.806	-.0968		
.832	-.0866		
.850		-.0969	
.900	-.0933		-.0784
.951	-.0962		
.966	-.0379		



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(UB2082) (16 APR 74)

ANES 87-710 1A12C 04 T1 S1 UPPER WING PRESSURE

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
 LREF = 1328.0000 IN. YMRP = .0000 IN.
 BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CPR = 31.260 SMPR = .316
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 2.498 ALPHA (1) = -7.870 PTO = 2305.125 PO = 135.825 R/FT = 2.985 Q = 591.500

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .050 .2823 .3521 .3948
 .250 .0074 .0292
 .362 .0405
 .400 -.0488
 .419 -.0395
 .550 -.0820 -.0856
 .600 -.0675
 .697 -.0279
 .700 -.1131
 .725 -.0999
 .750 -.1087
 .806 -.0149
 .832 .0312
 .850 -.1052
 .900 -.0141
 .951 .0690
 .966 .0933

MACH (1) = 2.498 ALPHA (2) = -5.880 PTO = 2305.125 PO = 135.825 R/FT = 2.985 Q = 591.500

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .050 .2371 .3007 .3582
 .250 -.0229 .0114
 .362 .0120
 .400 -.0769
 .419 -.0810
 .550 -.1032 -.1040
 .600 -.0814
 .697 -.0455
 .700 -.1290
 .725 -.1181
 .750 -.120
 .806 -.0351
 .922 .0103

AVES 87-710 1A12C 04 T1 S1 UPPER WING PRESSURE (LB/20R2)

MACH (1) = 2.498 ALPHA (2) = -5.880

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.850
 .900
 .951
 .966
 .0371
 -.0382
 -.1232
 -.1022

MACH (1) = 2.498 ALPHA (3) = -3.860 PTD = 2303.125 PO = 135.623 R/F T = 2.985 Q = 591.500

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090
 .290
 .362
 .400
 .419
 .550
 .600
 .697
 .700
 .725
 .750
 .806
 .832
 .850
 .900
 .951
 .966
 .2003
 -.0547
 -.0173
 -.0830
 -.1258
 -.0871
 -.1340
 -.0568
 -.0142
 .0106
 .0394
 .2397
 -.1427
 -.0999
 -.1256
 -.1437
 -.1367
 -.1403
 -.1194
 .3504
 -.1427
 -.0933

MACH (1) = 2.498 ALPHA (4) = -1.890 PTD = 2303.125 PO = 135.623 R/F T = 2.985 Q = 591.500

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050
 .250
 .362
 .400
 .419
 .550
 .600
 .697
 .050
 .1746
 -.0698
 -.0412
 -.1039
 -.1435
 -.0639
 .3285
 -.0581
 -.1090
 -.1407
 -.1062

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(US2082)

AVES 87-710 1A12C 04 T1 S1 UPPER WING PRESSURE

MACH (1) = 2.498 ALPHA (4) = -1.890

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/C .700 .725 .750 .806 .832 .850 .900 .951 .966

.2990 .4270 .5340 .6730 .7800 .8870
 -.1587
 -.1464
 -.1501
 -.0788
 -.0386
 -.1549
 -.0784
 -.1324
 -.0078
 .0190

MACH (1) = 2.498 ALPHA (5) = .150 PTO = 2305.125 PO = 135.623 R/FT = 2.985 Q = 591.500

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/C .090 .250 .362 .400 .419 .550 .600 .697 .700 .725 .750 .806 .832 .850 .900 .951 .966

.2990 .4270 .5340 .6730 .7800 .8870
 .1422 .2058 .2997
 -.1079 -.0487
 -.1270
 -.1245
 -.1561 -.1571
 -.1079
 -.1010
 -.1747
 -.1571
 -.1579
 -.0995
 -.0575
 -.1735
 -.0970
 -.1391
 -.0347
 .0041



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/2082)

AVES 87-710 1A12C 04 T1 S1 UPPER WING PRESSURE

MACH (1) = 2.498 ALPHA (6) = 2.100 PTD = 2305.125 PO = 135.625 P/PT = 2.985 Q = 591.500

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8970

X/C

.090 .0975 .1887 .2719
 .250 -.1146 -.0672
 .362 -.0692 -.1383
 .400
 .419 -.1370 -.1669
 .590 -.1714 -.1669
 .800 -.1150
 .697 -.1131
 .700 -.1831
 .725 -.1666
 .750 -.1641
 .806 -.1189
 .832 -.0687
 .850 -.1757
 .900 -.1328
 .951 -.0700
 .966 -.1429

MACH (1) = 2.498 ALPHA (7) = 4.080 PTD = 2305.125 PO = 135.625 P/PT = 2.985 Q = 591.500

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8970

X/C

.090 .1068 .1878 .2490
 .250 -.1271 -.0809
 .362 -.0795 -.1412
 .400
 .419 -.1517 -.1694
 .590 -.1799 -.1694
 .600 -.1212
 .697 -.1220
 .700 -.1850
 .725 -.1692
 .750 -.1692
 .806 -.1355
 .832 -.0888
 .850 -.1740
 .900 -.1587
 .951 -.0939
 .966 -.1537

DATE 03 DEC 74 TABULATED SOURCE DATA - (A12C (WING PRESSURES)) PAGE 153

MACH (1) = 2.436 ALPHA (2) = 6.140 DTG = 2005.125 PQ = 135.025 R/FT = 2.985 Q = 591.500

AVES 87-710 A12C 04 T1 S1 UPPER LING PRESSURE (027002)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7500	.8870
X/C						
.050			.0824	.1489		.2244
.250			-.1289		-.0917	
.362	-.0836					
.400				-.1475		
.419		-.1636				
.550			-.1802	-.1752		
.600					-.1261	
.697	-.1326					
.700				-.1885		
.725			-.1683			
.750					-.1743	
.806		-.1678				
.832	-.0972					
.850			-.1674			
.900		-.1573				-.1576
.931		-.1560				
.966	-.0267					

AVES 87-710 1A12C OA T1 S1 UPPER WING PRESSURE (LBZ083) (16 APR 74)

REFERENCE DATA

SREF = 2990.0000 SQ.FT. XREF = 933.0000 IN.
 LREF = 1328.0000 IN. WREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CRR = 26.860 SCRR = .768
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.002 ALPHA (1) = -7.920 PTO = 2308.889 PO = 62.778 R/PT = 2.263 Q = 395.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.030			.2720	.3611		.3972
.250			.0197		.0356	
.362	.0427					
.400				-.0249		
.419		-.0230				
.550			-.0379	-.0613		
.600						-.0059
.697		-.0197				
.700				-.0840		
.725			-.0718		-.0696	
.750						
.806		-.0272				
.832	.0108		-.0847			
.850						
.900			-.0364			-.0564
.951		.0247				
.966		.0847				

MACH (1) = 3.002 ALPHA (2) = -5.890 PTO = 2308.889 PO = 62.778 R/PT = 2.263 Q = 395.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.030			.2591	.3222		.3592
.250			-.0543		.0329	
.362	.0146					
.400				-.0422		
.419		-.0428				
.550			-.0746	-.0798		
.600						-.0172
.697		-.0370				
.700				-.0984		
.725			-.0843			
.750						
.806		-.0448				-.0791
.832						
.951						
.966						

DATE 05 DEC 74

TABULATED SOURCE DATA - (A12) (WING PRESSURES)

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AVES 77-710 (A12) ON T1 S1 UPPER WING PRESSURE (LB/IN²)

MACH (1) = 3.002 ALPHA (2) = -5.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050					
.250					
.362					
.419					
.490					
.600					
.697					
.700					
.723					
.740					
.808					
.932					
.940					
.970					
.981					
.986					

-0.999

-0.569

.0000

.0394

-0.652

MACH (1) = 3.002 ALPHA (3) = -3.920 PTO = 2308.889 PO = 62.778 R/PT = 2.263 Q = 395.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050					
.250					
.362					
.419					
.490					
.600					
.697					
.700					
.723					
.740					
.808					
.932					
.940					
.970					
.981					
.986					

.2006

.2623

-.0244

-.0101

-.0569

-.0803

-.0890

-.0527

.0171

-.0569

-.1096

-.0560

-.0853

-.0848

-.1121

-.0809

-.0246

-.0749

-0.74

MACH (1) = 3.002 ALPHA (4) = -1.920 PTO = 2308.889 PO = 62.778 R/PT = 2.263 Q = 395.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050					
.250					
.362					
.419					
.490					
.600					
.697					
.700					
.723					
.740					
.808					
.932					
.940					
.970					
.981					
.986					

.1775

.2106

-.0391

-.0313

-.0800

-.0735

-.0986

-.0972

.3440

-.0333

-.0333

DATE 05 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

(LB/IN²)

AVES 87-710 (A12C ON T1 S1 UPPER WING PRESSURE)

MACH (1) = 3.002 ALPHA (4) = -1.920

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
 .700 -.1136
 .725 -.0990
 .750 -.0937
 .808 -.0824
 .832 -.0513
 .850 -.1154
 .900 -.0934
 .951 -.0437
 .966 -.0019
 .982 -.0982

MACH (1) = 3.002 ALPHA (5) = .100 PTO = 2508.889 PO = 62.776 R/PT = 2.263 0 = 395.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
 .090 .1521 .2176 .3193
 .250 -.0585 -.0250
 .362 -.0421 -.0683
 .400 -.0843
 .419 -.1086 -.1058
 .550 -.0378
 .600
 .697 -.0779
 .700 -.1215
 .725 -.1016
 .750 -.1047
 .808 -.0948
 .832 -.0897
 .850 -.1215
 .900 -.1019
 .951 -.0824
 .966 -.0811
 .982 -.0935

DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

WING (1) = 3.002 ALPHA (1) = 2.050 PTO = 2308.899 PC = 62.778 P/PT = 2.263 Q = 395.111
(0.2083)

SECTION (1) UPPER WING DEPENDENT VARIABLE CP

X/B .2990 .4270 .5340 .6750 .7820 .8870

X/C
.090 .1184 .1979 .2693
.250 -.0645 -.0365
.362 -.0781
.400 -.0771
.419 -.0987
.500 -.1164 -.1136
.600 -.0451
.697 -.0696
.700
.703
.770
.806
.832 -.1080
.850
.850
.850
.851
.856 -.0827
.866 -.0323

WING (1) = 3.002 ALPHA (1) = 4.080 PTO = 2308.899 PC = 62.778 P/PT = 2.263 Q = 395.111

SECTION (1) LOWER WING DEPENDENT VARIABLE CP

X/B .2990 .4270 .5340 .6750 .7820 .8870

X/C
.090 .0968 .1634 .2703
.250 -.0708 -.0483
.362 -.0676
.400
.419
.500
.600
.697 -.0946
.700
.703
.770
.806
.832 -.1173
.850
.850
.850
.851
.856 -.1032
.866 -.0374

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.002 ALPHA (2) = 6.040 P/Q = 2308.889 P/Q = 62.778 P/Q = 2.283 Q = 399.111
 ANES 87-710 1A12C 04 T1 S1 UPPER WING PRESSURE (LB/20RS)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.1180	.1827		.2410
.290			-.0870	-.0824		
.342	-.0731					
.400			-.0740			
.419		-.1112				
.550			-.1234	-.1199		
.600					-.0583	
.697	-.1008					
.700				-.1310		
.725			-.1191			
.750					-.1167	
.808		-.1204				
.832	-.0950			-.1262		
.850			-.1224			-.1107
.900						
.951		-.1216				
.966	-.0422					

MACH (1) = 3.002 ALPHA (9) = 8.090 P/Q = 2308.889 P/Q = 62.778 P/Q = 2.283 Q = 399.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.0969	.1412		.2191
.290			-.0756	-.0753		
.362	-.0721					
.470				-.0909		
.419		-.1141				
.550			-.1256	-.1246		
.600					-.0636	
.697	-.1059					
.700				-.1297		
.725			-.1110			
.750					-.1185	
.808		-.1274				
.832	-.1077					
.850			-.1304			
.900			-.1271			-.1147
.951		-.1129				
.966	-.0980					



DATE 03 DEC 74

TABULATED SOURCE DATA - 1A12C (MING PRESSURES)

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AVES 87-710 1A12C ON T1 S1 UPPER WING PRESSURE

(UBJ084) (16 APR 74)

REFERENCE DATA

SREF = 2490.0000 SQ.FT. WREF = 955.0000 IN.
 LREF = 1328.0000 IN. WREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CRR = 23.850 SEMR = .826
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.499 ALPHA (1) = -7.790 PTO = 2305.375 PO = 30.000 R/FY = 1.761 Q = 259.250
 MACH (2) = 3.499 ALPHA (2) = -5.770 PTO = 2305.375 PO = 30.000 R/FY = 1.761 Q = 259.250

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/P	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.050			.2876	.3624	.4101	
.250			.0452	.0680		
.362	.0420					
.400			.0124			
.419		-.0142				
.550			-.0388	-.0390		
.600					.0400	
.697	-.0142					
.700			-.0647			
.725		-.0477				
.750					-.0385	
.806		-.0367				
.832	-.0115					
.850			-.0696			
.900					-.0298	
.931		-.0017				
.966	.0530					

MACH (1) = 3.499 ALPHA (2) = -5.770 PTO = 2305.375 PO = 30.000 R/FY = 1.761 Q = 259.250
 MACH (2) = 3.499 ALPHA (2) = -5.770 PTO = 2305.375 PO = 30.000 R/FY = 1.761 Q = 259.250

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/P	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.050			.2416	.3218	.3778	
.250			.0252	.0267		
.362	.0252					
.400			-.0034			
.419		-.0240				
.550			-.0486	-.0526		
.600					.0298	
.697	-.0266					
.700			-.0722			
.725		-.0498				
.750						
.806		-.0442				
.832					-.0477	
.850						
.900						
.931						
.966	.0234					

STABILATED SOURCE DATA - 1A12C (WING PRESSURES)

(187024)

AMES 87-210 1A12C 04 T1 S1 UPPER WING PRESSURE

$$\text{MACH} (1) = 3.499 \quad \text{ALPHA} (2) = -5.770$$

SECTION 1100B INTER WING

DEPENDENT VARIABLE CP

	1970	1980	1990	2000	2010
Population	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
GDP (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
Per capita GDP (US\$)	1,000	1,000	1,000	1,000	1,000
Unemployment (%)	10.0	10.0	10.0	10.0	10.0
Inflation (%)	10.0	10.0	10.0	10.0	10.0
Interest rate (%)	10.0	10.0	10.0	10.0	10.0
Government expenditure (%)	10.0	10.0	10.0	10.0	10.0
Private investment (%)	10.0	10.0	10.0	10.0	10.0
Savings (%)	10.0	10.0	10.0	10.0	10.0
Current account balance (%)	10.0	10.0	10.0	10.0	10.0
Foreign debt (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
Exports (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
Imports (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
Balance of trade (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
Balance of payments (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
Reserve assets (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
Money supply (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
M2 (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
CPI (1980=100)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
PPI (1980=100)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
Fiscal deficit (%)	10.0	10.0	10.0	10.0	10.0
Public debt (%)	10.0	10.0	10.0	10.0	10.0
Central bank assets (%)	10.0	10.0	10.0	10.0	10.0
Central bank liabilities (%)	10.0	10.0	10.0	10.0	10.0
Monetary growth (%)	10.0	10.0	10.0	10.0	10.0
Real GDP growth (%)	10.0	10.0	10.0	10.0	10.0
Labour force growth (%)	10.0	10.0	10.0	10.0	10.0
Capital stock growth (%)	10.0	10.0	10.0	10.0	10.0
Human capital growth (%)	10.0	10.0	10.0	10.0	10.0
Healthcare expenditure (%)	10.0	10.0	10.0	10.0	10.0
Educational expenditure (%)	10.0	10.0	10.0	10.0	10.0
Research and development (%)	10.0	10.0	10.0	10.0	10.0
Energy consumption (%)	10.0	10.0	10.0	10.0	10.0
CO ₂ emissions (%)	10.0	10.0	10.0	10.0	10.0
Forest cover (%)	10.0	10.0	10.0	10.0	10.0
Biodiversity index	10.0	10.0	10.0	10.0	10.0
Life expectancy at birth (years)	10.0	10.0	10.0	10.0	10.0
Infant mortality rate (per 1,000 live births)	10.0	10.0	10.0	10.0	10.0
Adult literacy rate (%)	10.0	10.0	10.0	10.0	10.0
Gender inequality index	10.0	10.0	10.0	10.0	10.0
HDI	10.0	10.0	10.0	10.0	10.0
Corruption perception index	10.0	10.0	10.0	10.0	10.0
World Bank governance indicators	10.0	10.0	10.0	10.0	10.0
IMR	10.0	10.0	10.0	10.0	10.0
FDI inflows (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
ODA inflows (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
Net international reserves (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
Official development assistance (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
Foreign direct investment (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
Portfolio investment (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
Direct investment (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
Indirect investment (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
Financial flows (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
Trade credit (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
Export credit (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
Import credit (US\$)	1,697,000	2,000,000	2,200,000	2,300,000	2,400,000
Balance of trade (US\$)	1,697,0				

X/C			
.830		-.0739	
.900		-.0597	
.951		-.0191	
.966			-.0280
			-.0374

1. 2000 2. 2000 3. 2000 4. 2000 5. 2000 6. 2000 7. 2000 8. 2000 9. 2000 10. 2000 11. 2000 12. 2000 13. 2000 14. 2000 15. 2000 16. 2000 17. 2000 18. 2000 19. 2000 20. 2000 21. 2000 22. 2000 23. 2000 24. 2000 25. 2000 26. 2000 27. 2000 28. 2000 29. 2000 30. 2000 31. 2000 32. 2000 33. 2000 34. 2000 35. 2000 36. 2000 37. 2000 38. 2000 39. 2000 40. 2000 41. 2000 42. 2000 43. 2000 44. 2000 45. 2000 46. 2000 47. 2000 48. 2000 49. 2000 50. 2000 51. 2000 52. 2000 53. 2000 54. 2000 55. 2000 56. 2000 57. 2000 58. 2000 59. 2000 60. 2000 61. 2000 62. 2000 63. 2000 64. 2000 65. 2000 66. 2000 67. 2000 68. 2000 69. 2000 70. 2000 71. 2000 72. 2000 73. 2000 74. 2000 75. 2000 76. 2000 77. 2000 78. 2000 79. 2000 80. 2000 81. 2000 82. 2000 83. 2000 84. 2000 85. 2000 86. 2000 87. 2000 88. 2000 89. 2000 90. 2000 91. 2000 92. 2000 93. 2000 94. 2000 95. 2000 96. 2000 97. 2000 98. 2000 99. 2000 100. 2000

DEPENDENT VARIABLE CP

Year	1980	1981	1982	1983	1984
1980	2990	4270	5340	6730	7600
1981					
1982					
1983					
1984					
1985					
1986					
1987					
1988					
1989					
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2069					
2070					
2071					
2072					
2073					
2074					

χ^2			
.059	.1974	.2703	.3963
.250	.0037		.0175

1.000		
.400		-.0163
.419		-.0401
.550		-.0597
.600		-.0639

0.697	-0.0373	
0.700		-0.0417
0.725	-0.0566	
0.750		-0.0999

Variable	Mean	Standard Deviation	Minimum	Maximum
Age	32.5	10.5	18	65
Gender	0.5	0.5	0	1
Marital Status	0.5	0.5	0	1
Education	12.5	1.5	10	16
Income	35000	15000	10000	70000
Health	0.5	0.5	0	1
Exercise	0.5	0.5	0	1
Stress	0.5	0.5	0	1
Depression	0.5	0.5	0	1
Life Satisfaction	0.5	0.5	0	1
Overall Well-being	0.5	0.5	0	1

Model	Chi-Square	df	p
Model 1	9.66	1	.0051
Model 2	9.31	1	.0051

$$= 259,250$$

SECTION / 1108B1TER WING

DEPENDENT VARIABLE CP

2990	.4270	.5340	.6750	.7800	.8870
------	-------	-------	-------	-------	-------

4/C			
.050	.1710	.2019	.3626
250	- .0066		- .0204

.362	-.0056	
.400		-.0269
.419	-.0303	
.450		-.0463
		-.0701

200 - 500

DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/20R4)

AVES 87-710 1A12C OX T1 S1 UPPER WING PRESSURE

MACH (1) = 3.499 ALPHA (4) = -1.790

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.700					
.725					
.750					
.806					
.832					
.850					
.900					
.951					
.966					

MACH (1) = 3.499 ALPHA (5) = 2.220 PTO = 2305.375 PO = 30.000 R/PT = 1.761 Q = 259.250

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090					
.250					
.362					
.400					
.419					
.550					
.600					
.697					
.700					
.725					
.750					
.806					
.832					
.850					
.900					
.951					
.966					

DATE 03 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 162

(UBZ084)

AMES 87-710 1A12C ON TI S1 UPPER WING PRESSURE

MACH (1) = 3.499 ALPHA (6) = 4.250 PTO = 2305.375 PO = 30.000 R/PT = 1.761 Q = 259.250

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.030	.1028	.1633	.2877
.250	-.0298	-.0393	
.362	-.0467		
.400		-.0348	
.419	-.0725		
.550		-.0836	
.600			-.0043
.697	-.0753		
.700		-.0919	
.725		-.0811	
.750			-.0782
.806	-.0851		
.832	-.0796		
.850		-.0919	
.900		-.0864	
.951	-.0819		-.0695
.966	-.0536		

MACH (1) = 3.499 ALPHA (7) = 6.220 PTO = 2305.375 PO = 30.000 R/PT = 1.761 Q = 259.250

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050	.1118	.1663	.2432
.250	-.0327	-.0460	
.362	-.0512		
.400		-.0405	
.419	-.0770		
.550		-.0875	
.600			-.0116
.697	-.0786		
.700		-.0897	
.725		-.0678	
.750			-.0771
.806	-.0950		
.832	-.0819		
.850		-.0919	
.900		-.0913	
.951	-.0934		-.0712
.966	-.0359		



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

WACH (1) = 3.499 ALPHA (R) = 8.220 P70 = 2303.375 PO = 30.000 R/FT = 1.761 Q = 299.230
(UB2084)

AVES 87-710 1A12C ON T1 S1 UPPER WING PRESSURE

SECTION (1) ORBITER WING

Y/B	X/C	DEPENDENT VARIABLE CP
.2990	.4270	.5340 .6730 .7800 .8870
.050		.1017 .1444 .2241
.250		-.0337 -.0540
.362	-.0344	
.400		-.0464
.419	-.0843	
.550		-.0816 -.0861
.600		-.0168
.697	-.0821	
.700		-.0877
.725		-.0660
.750		-.0779
.806	-.0941	
.832	-.0865	
.850		-.0877
.900		-.0899
.951	-.0697	
.966	-.0544	-.0715



DATE 05 DEC 74

TABULATED SOURCE DATA - (A12C WING PRESSURES)

PAGE 164

AMES 87-710 A12C ON T1 S1 UPPER WING PRESSURE (LB/2085) (16 APR 74)

REFERENCE DATA

SREF = 2990.0000 SQ.FT. XMRP = 953.0000 IN.
 LREF = 1328.0000 IN. YMRP = .0000 IN.
 BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 GIMBAL = 3.000 RUDDER = .000

MACH (1) = 3.002 ALPHA (1) = -3.690 PTO = 2313.286 PO = 63.000 R/P T = 2.348 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.2078	.2659		.3661
.250			-.0202		.0255	
.362	-.0059					
.400			-.0493			
.419		-.0574				
.550			-.0846	-.0851		
.600					-.0215	
.697	-.0513					
.700			-.1022			
.725			-.0940		-.0779	
.750						
.806		-.0824				
.832	-.0291					
.850			-.1037			-.0719
.900			-.0736			
.951		-.0216				
.966	.0210					

MACH (1) = 3.002 ALPHA (2) = -1.690 PTO = 2313.286 PO = 63.000 R/P T = 2.348 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.1774	.2145		.3423
.250			-.0363		-.0281	
.362	-.0269					
.400			-.0343			
.419		-.0713				
.550			-.0980	-.0897		
.600					-.0311	
.697	-.0656					
.700			-.1083			
.725		-.1019				
.750					-.0915	
.806		-.0810				
.832	-.0502					

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LBZ085)

MACH (1) = 3.002 ALPHA (2) = -1.890

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.850 -.1112
.900 -.0893
.951 -.0420
.966 -.0005

MACH (1) = 3.002 ALPHA (3) = .130 PTO = 2313.286 PO = 63.000 R/FT = 2.348 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .1578 .2223 .3169
.250 -.0324 -.0213
.362 -.0413
.400 -.0643
.419 -.0831
.550 -.1046 -.1001
.600 -.0361
.697 -.0763
.700 -.1182
.725 -.1069
.730 -.0979
.806 -.0921
.832 -.0631
.850 -.1172
.900 -.0994
.951 -.0588
.966 -.0191

MACH (1) = 3.002 ALPHA (4) = 2.110 PTO = 2313.286 PO = 63.000 R/FT = 2.348 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .1223 .2016 .2897
.250 -.0392 -.0335
.362 -.0567
.400 -.0693
.419 -.0976
.550 -.1129 -.1069
.600 -.0422
.697 -.0433

DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/2089)

AMES 87-710 1A12C Q1 T1 S1 UPPER WING PRESSURE

MACH (1) = 3.002 ALPHA (4) = 2.110

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7900 .8970

X/C

.700 -.1223
 .725 -.1087
 .750 -.1029
 .806 -.1021
 .832 -.0731
 .850 -.1197
 .900 -.1079
 .951 -.0799
 .966 -.0955
 -.1284

MACH (1) = 3.002 ALPHA (5) = 4.120 PTO = 2913.286 PD = 63.000 R/PT = 2.349 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7900 .8970

X/C

.050 .1087 .1894 .2733
 .250 -.0635 -.0428
 .362 -.0660
 .430 -.0722
 .419 -.0998
 .750 -.1161 -.1083
 .607 -.1051
 .697 -.0925
 .700 -.1237
 .725 -.1104
 .750 -.1058
 .806 -.1132
 .832 -.0842
 .850 -.1223
 .900 -.1158
 .951 -.0965
 .966 -.0334



DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 167

AVES 87-710 1A12C 01 T1 S1 UPPER WING PRESSURE (UB2065)

MACH (1) = 3.002 ALPHA (°) = 6.150 PTO = 2313.286 PO = 63.000 R/PT = 2.348 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8970

X/C

.090	.1152	.1684	.2444
.250	-.0627	-.0532	
.362	-.0899		
.400		-.0764	
.419	-.1064		
.550		-.1189	-.1115
.600			-.0522
.697	-.0937		
.700		-.1244	
.725		-.1101	
.750			-.1097
.806	-.1222		
.832	-.0928		
.850		-.1212	
.900	-.1179		-.1059
.951	-.1189		
.966	-.0394		

MACH (1) = 3.002 ALPHA (°) = 6.150 PTO = 2313.286 PO = 63.000 R/PT = 2.348 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8970

X/C

.090	.1004	.1471	.2184
.250	-.0681	-.0693	
.362	-.0742		
.400		-.0826	
.419	-.1116		
.550	-.1204	-.1180	
.600			-.0605
.697	-.1043		
.700		-.1255	
.725	-.1126		-.1140
.750			
.806	-.1254		
.832	-.1068		
.850		-.1246	
.900	-.1219		-.1120
.951	-.1207		
.966	-.0513		

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-710 1A12C Q1 T1 S1 UPPER WING PRESSURE (UB2088) (16 APR 74)

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 26.860 SPWR = .768
GIMBAL = 3.000 RUDDER = .000

REFERENCE DATA

SREF = 2890.0000 SQ.FT. XWRP = 933.0000 IN.
LREF = 1328.0000 IN. YWRP = .0000 IN.
BREF = 1328.0000 IN. ZWRP = 400.0000 IN.
SCALE = .0190 SCALE

MACH (1) = 3.002 ALPHA (1) = -7.963 PTD = 2297.444 PO = 62.333 R/P/T = 2.267 Q = 393.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .2709 .3624 .3954
.250 .0220 .0598
.362 .0445
.400 -.0203
.419 -.0230
.550 -.0588 -.0588 -.0045
.600
.697 -.0190
.700 -.0616
.725 -.0657
.750
.790
.808 -.0268
.832 .0098
.850 -.0627
.900 -.0329 -.0354
.921 .0253
.946 .0643

MACH (1) = 3.002 ALPHA (2) = -5.960 PTD = 2297.444 PO = 62.333 R/P/T = 2.267 Q = 393.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .2397 .3251 .3541
.250 -.0222 .0378
.362 .0167
.400 -.0382
.419 -.0424
.550 -.0732 -.0773
.600
.697 -.0351
.700 -.0961
.725 -.0776
.750
.808 -.0442
.832 -.0751
.946 -.0064

(LB/INCH)

A12C M1 T1 S1 UPPER WING PRESSURE

MACH (1) = 3.002 ALPHA (4) = -1.950

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.700					
.725					
.750					
.775					
.800					
.825					
.850					
.875					
.900					
.925					
.950					
.975					
.990					

MACH (1) = 3.002 ALPHA (5) = .040 P70 = 2297.444 P0 = 62.333 R/PY = 2.267 3 = 343.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090					
.290					
.362					
.400					
.419					
.550					
.600					
.697					
.700					
.725					
.750					
.808					
.832					
.850					
.900					
.951					
.966					



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.002 ALPHA (6) = 2.030 PTC = 2297.444 P0 = 62.333 R/PT = 2.267 Q = 393.444
 ASES 87-710 1A12C ON T1 S1 UPPER WING PRESSURE (UPX08A)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/C	.2990	.4270	.5540	.6730	.7600	.8670
X/C						
.090			.1178	.2007		.2892
.290			-.0639		-.0324	
.362	-.0970			-.0751		
.400						
.419		-.0940				
.550			-.1159	-.1121		
.600						-.0450
.697	-.0675					
.700			-.1247			
.725			-.0995		-.1031	
.750						
.806		-.1037				
.832	-.0755			-.1216		-.0969
.850			-.1085			
.851		-.0766				
.946	-.0872					

MACH (1) = 3.002 ALPHA (7) = 4.040 PTC = 2297.444 P0 = 62.333 R/PT = 2.267 Q = 393.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/C	.2990	.4270	.5540	.6730	.7600	.8670
X/C						
.090			.0937	.1870		.2710
.290			-.0675		-.0458	
.362	-.0869			-.0782		
.400						
.419		-.1025				
.550			-.1209	-.1152		
.600						-.0906
.697	-.0955					
.700			-.1275			
.725			-.1005		-.1096	
.750						
.806		-.1155				
.832	-.0676			-.1249		-.1045
.850			-.1167			
.900		-.1007				
.951						
.946	-.0327					

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(७७७७७७)

AMES 87-710 1A12C 01 T1 S1 UPPER WING PRESSURE

WACH (1) =	3.002	ALPHA (8) =	6.530	P70	= 2297.444	PO	= 62.333	R67	= 2.267	Q	= 393.444
------------	-------	-------------	-------	-----	------------	----	----------	-----	---------	---	-----------

SECTION (1) ORBITER WING

[illegible]

2

.090	.1105	.1639	.2434
------	-------	-------	-------

-.290 -.0696 -.0579

362 - 0752

403-523-

419 -1095

330 - 121 - 119

33

697 - 0000

1341

1874

0 7 1 1 4 4 1

3

16371-1

100

831.1

8111:-

三

1234

$$\begin{aligned} \text{MAC}_{\text{A}}(1) &= 3,002 & \text{MAC}_{\text{A}}(9) &= 6,010 \\ \text{MAC}_{\text{B}}(1) &= 3,002 & \text{MAC}_{\text{B}}(9) &= 6,010 \\ \text{MAC}_{\text{C}}(1) &= 3,002 & \text{MAC}_{\text{C}}(9) &= 6,010 \\ \text{MAC}_{\text{D}}(1) &= 3,002 & \text{MAC}_{\text{D}}(9) &= 6,010 \\ \text{MAC}_{\text{E}}(1) &= 3,002 & \text{MAC}_{\text{E}}(9) &= 6,010 \\ \text{MAC}_{\text{F}}(1) &= 3,002 & \text{MAC}_{\text{F}}(9) &= 6,010 \\ \text{MAC}_{\text{G}}(1) &= 3,002 & \text{MAC}_{\text{G}}(9) &= 6,010 \\ \text{MAC}_{\text{H}}(1) &= 3,002 & \text{MAC}_{\text{H}}(9) &= 6,010 \\ \text{MAC}_{\text{I}}(1) &= 3,002 & \text{MAC}_{\text{I}}(9) &= 6,010 \\ \text{MAC}_{\text{J}}(1) &= 3,002 & \text{MAC}_{\text{J}}(9) &= 6,010 \\ \text{MAC}_{\text{K}}(1) &= 3,002 & \text{MAC}_{\text{K}}(9) &= 6,010 \\ \text{MAC}_{\text{L}}(1) &= 3,002 & \text{MAC}_{\text{L}}(9) &= 6,010 \\ \text{MAC}_{\text{M}}(1) &= 3,002 & \text{MAC}_{\text{M}}(9) &= 6,010 \\ \text{MAC}_{\text{N}}(1) &= 3,002 & \text{MAC}_{\text{N}}(9) &= 6,010 \\ \text{MAC}_{\text{O}}(1) &= 3,002 & \text{MAC}_{\text{O}}(9) &= 6,010 \\ \text{MAC}_{\text{P}}(1) &= 3,002 & \text{MAC}_{\text{P}}(9) &= 6,010 \\ \text{MAC}_{\text{Q}}(1) &= 3,002 & \text{MAC}_{\text{Q}}(9) &= 6,010 \\ \text{MAC}_{\text{R}}(1) &= 3,002 & \text{MAC}_{\text{R}}(9) &= 6,010 \\ \text{MAC}_{\text{S}}(1) &= 3,002 & \text{MAC}_{\text{S}}(9) &= 6,010 \\ \text{MAC}_{\text{T}}(1) &= 3,002 & \text{MAC}_{\text{T}}(9) &= 6,010 \\ \text{MAC}_{\text{U}}(1) &= 3,002 & \text{MAC}_{\text{U}}(9) &= 6,010 \\ \text{MAC}_{\text{V}}(1) &= 3,002 & \text{MAC}_{\text{V}}(9) &= 6,010 \\ \text{MAC}_{\text{W}}(1) &= 3,002 & \text{MAC}_{\text{W}}(9) &= 6,010 \\ \text{MAC}_{\text{X}}(1) &= 3,002 & \text{MAC}_{\text{X}}(9) &= 6,010 \\ \text{MAC}_{\text{Y}}(1) &= 3,002 & \text{MAC}_{\text{Y}}(9) &= 6,010 \\ \text{MAC}_{\text{Z}}(1) &= 3,002 & \text{MAC}_{\text{Z}}(9) &= 6,010 \end{aligned}$$

DEPENDENT VARIABLE OF INTEREST (1) OR INTERVARIABLE (2)

Year	1970	1971	1972	1973	1974
1970	2,990	4,270	5,340	6,750	7,600
1971	2,990	4,270	5,340	6,750	7,600
1972	2,990	4,270	5,340	6,750	7,600
1973	2,990	4,270	5,340	6,750	7,600
1974	2,990	4,270	5,340	6,750	7,600

21

222 146 002 050

-0.009 -0.711

--0710

-084

- 1109

1991 - 1992

344

3 2 1

1346
-11033

04-21-77

2011-2012

1140

6571-

2001-2002

1621:-

3311-1

0011

49 - 0491

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TABULATED SOURCE DATA - (A12C WING PRESSURES)

PAGE 173

(UBZ089) (16 APR 74)

A/E'S '1C A12C 01 T1 S1 UPPER WING PRESSURE

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 993.0000 IN.
 LREF = 1328.0000 IN. YMRP = .0000 IN.
 BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .010
 GMEAL = 3.000 RUDDER = .000

MACH (1) = 3.499 ALPHA (1) = -7.740 PTO = 2310.222 PO = 50.000 R/FY = 1.776 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .2839 .3647 .4069
 .250 .0477 .0672
 .362 .0444 .0197
 .400 .0197
 .419 -.0107
 .550 -.0357 -.0332 .0429
 .600
 .697 -.0123
 .700 -.0582
 .725 -.0539 -.0342
 .750
 .806 -.0363
 .832 -.0098
 .850 -.0637 -.0279
 .900 -.0463
 .951 -.0008
 .966 .0531

MACH (1) = 3.499 ALPHA (2) = -5.750 PTO = 2310.222 PO = 50.000 R/FY = 1.776 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .2392 .3197 .3707
 .250 .0259 .0317
 .362 .0199
 .400 -.0010
 .419 -.0281
 .550 -.0494 -.0506 .0283
 .600
 .697 -.0270
 .700 -.0719
 .725 -.0626
 .750 -.0488
 .806 -.0450
 .832 -.0237

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

(US 2089)

MES 87-710 1A12C ON T1 S1 UPPER WING PRESSURE

MACH (1) = 3.499 ALPHA (4) = -1.720

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8970

X/C

.700						
.725						
.750						
.806						
.832						
.850						
.860						
.951						
.966						

MACH (1) = 3.499 ALPHA (5) = .250 PTO = 7310.222 PO = 30.000 R/FT = 1.776 0 = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8970

X/C

.050						
.250						
.362						
.400						
.419						
.550						
.600						
.697						
.700						
.725						
.750						
.806						
.832						
.850						
.900						
.951						
.966						

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TABULATED SOURCE DATA - (A12C WING PRESSURES)

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AKES 87-710 (A12C OF T1 S1 UPPER WING PRESSURE (LB/2069)

MACH (1) = 3.499 ALPHA (6) = 2.250 PTC = 2310.222 PO = 30.000 R/FT = 1.776 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.1173	.1999		.2968
.250			-.0260		-.0267	
.362	-.0440					
.400			-.0283			
.419		-.0729				
.550			-.0810	-.0735		
.600						-.0007
.697	-.0680					
.700			-.0904			
.723			-.0801			
.750				-.0735		
.806		-.0859				
.832	-.0729			-.0893		
.850			-.0844		-.0650	
.900						
.951		-.0805				
.966	-.0423					

MACH (1) = 3.499 ALPHA (7) = 4.280 PTC = 2310.222 PO = 30.000 R/FT = 1.776 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.1027	.1826		.2798
.250			-.0309		-.0381	
.362	-.0532					
.400				-.0359		
.419		-.0745				
.550			-.0827	-.0828		
.600						-.0050
.697	-.0739					
.700			-.0942			
.723			-.0817		-.0784	
.750						
.806		-.0876				
.832	-.0778					
.850			-.0959			
.900			-.0915			-.0704
.951		-.0876				
.966	-.0494					

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TABULATED SOURCE DATA - (A12C (MINE PRESSURES))

PAGE 177

MACH (1) = 3.499 ALPHA (8) = 6.290 PTO = 2310.222 PO = 30.000 R/FT = 1.776 Q = 280.000
 (UB2089)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .1126 .1670 .2335
 .250 -.0303 -.0473
 .362 -.0608
 .400 -.0402
 .419 -.0815
 .530 -.0865 -.0809
 .600 -.0131
 .697 -.0783
 .700 -.0904
 .725 -.0833
 .750 -.0833
 .806 -.0946
 .832 -.0828
 .850 -.0975
 .900 -.0942
 .951 -.0941
 .966 -.0521
 -.0747

MACH (1) = 3.499 ALPHA (9) = 8.290 PTO = 2310.222 PO = 30.000 R/FT = 1.776 Q = 280.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .1006 .1450 .2134
 .250 -.0347 -.0555
 .362 -.0647
 .400 -.0408
 .419 -.0846
 .530 -.0854 -.0850
 .600 -.0219
 .697 -.0638
 .700 -.0986
 .725 -.0817
 .750 -.0877
 .806 -.0968
 .832 -.0857
 .850 -.0991
 .900 -.0931
 .951 -.0974
 .966 -.0987
 -.0807

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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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AHES 87-710 1A12C 01 T1 S1 UPPER WING PRESSURE (UBZ092) (16 APR 74)

REFERENCE DATA

SHEP = 2690.0000 SQ.FT. XMRP = 933.0000 IN.
 LREF = 1328.0000 IN. YMRP = .0000 IN.
 BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CRR = 23.660 SCARR = .826
 GIMBAL = 3.000 RUDDER = .000

MACH (1) = 3.499 ALPHA (1) = -7.920 PTO = 2301.000 PO = 30.000 R/FY = 1.765 Q = 258.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .090 .2871 .3670 .4102
 .250 .0459 .0778
 .362 .0481
 .400 .0185
 .419 -.0135
 .550 -.0386 -.0338
 .600 .0417
 .697 -.0124
 .700 -.0589
 .725 -.0398
 .750 -.0333
 .806 -.0370
 .832 -.0102
 .850 -.0643
 .900 -.0442
 .951 .0001
 .966 .0546
 -.0296

MACH (1) = 3.499 ALPHA (2) = -5.630 PTO = 2301.000 PO = 30.000 R/FY = 1.765 Q = 258.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .090 .2407 .3204 .3742
 .250 .0261 .0341
 .362 .0282
 .400 -.0008
 .419 -.0247
 .550 -.0493 -.0510
 .600 .0291
 .697 -.0263
 .700 -.0713
 .725 -.0472
 .750 -.0467
 .806 -.0449
 .952 -.0219



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LBZ092)

AVES 87-710 1A12C 01 T1 S1 UPPER WING PRESSURE

MACH (1) = 3.499 ALPHA (4) = -1.840

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.700	-.0816
.725	-.0516
.750	-.0631
.803	-.0162
.832	-.0514
.850	-.0816
.900	-.0880
.951	-.0503
.966	-.0539

MACH (1) = 3.499 ALPHA (5) = .180 P10 = 2301.000 P0 = 30.000 P/PT = 1.765 Q = 258.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090	.1437	.2081	.3348
.250	-.0177	-.0112	
.362	-.0256	-.0248	
.400	-.0505	-.0710	.0124
.419	-.0753	-.0904	
.550	-.0534	-.0626	
.600	-.0604	-.0787	-.0565
.697	-.0609	-.0555	
.703	-.0555		
.725			
.750			
.806			
.832			
.850			
.900			
.951			
.966			

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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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AVES 87-710 1A12C Q1 T1 S1 UPPER WING PRESSURE (UB2092)

MACH (1) = 3.499 ALPHA (°) = 2.150 PTO = 2301.000 PO = 30.000 R/FT = 1.765 Q = 256.689

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8870

X/C

.090	.1168	.2033	.2726
.250	-.0253	-.0216	
.362	-.0356		
.400		-.0292	
.419	-.0546		
.550	-.0777	-.0724	
.600			.0039
.697	-.0673		
.700		-.0789	
.725	-.0544		
.750			-.0604
.806	-.0761		
.832	-.0690		
.850		-.0789	
.900	-.0675		-.0567
.951	-.0606		
.966	.0293		

MACH (1) = 3.499 ALPHA (°) = 4.170 PTO = 2301.000 PO = 30.000 R/FT = 1.765 Q = 256.689

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8870

X/C

.090	.0990	.1845	.2684
.250	-.0309	-.0349	
.362	-.0402		
.400		-.0360	
.419	-.0556		
.550	-.0770	-.0793	
.600			-.0021
.697	-.0704		
.700		-.0793	
.725	-.0557		
.750			-.0634
.806	-.0761		
.832	-.0737		
.850		-.0793	
.900	-.0732		-.0997
.951	-.0677		
.966	.0273		

AMES 87-710 1A12C (M T1 S1 UPPER WING PRESSURE (UB-2092)

MACH (1) = 3.499 ALPHA (8) = 8.150 P70 = 2301.000 P0 = 30.000 R/FY = 1.765 Q = 258.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090			.1101	.1697		.2406
.250			-.0316		-.0427	
.362	-.0218					
.400				-.0367		
.419			-.0666			
.570				-.0792	-.0755	
.677						-.0064
.697	-.0796					
.700				-.0777		
.725			-.0580			
.750					-.0646	
.856			-.0686			
.852	-.0803					
.850				-.0794		
.900			-.0766			-.0592
.951			-.0762			
.966	.0122					

MACH (1) = 3.499 ALPHA (9) = 8.160 P70 = 2301.000 P0 = 30.000 R/FY = 1.765 Q = 258.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090			.1000	.1457		.2211
.250			-.0356		-.0532	
.362	-.0530					
.400				-.0439		
.419						
.550			-.0722	-.0794		
.600						-.0150
.697	-.0615					
.700				-.0805		
.725			-.0603			
.806					-.0712	
.832	-.0856					
.850				-.0822		
.900			-.0632			-.0675
.951			-.0793			
.966	-.0120					



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TABULATED SOURCE DATA - 1A12C WING PRESSURES

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AVES 07-710 1A12C ON T1 S1 UPPER WING PRESSURE (UBZ053) (16 APR 74)

REFERENCE DATA

$WREF = 2490.0000$ SQ.FT. $WREF = 933.0000$ IN.
 $UWREF = 1326.0000$ IN. $UWREF = .0000$ IN.
 $BRREF = 1326.0000$ IN. $ZWREF = 400.0000$ IN.
 $SCALE = .0190$ SCALE

PARAMETRIC DATA

$BETA = .000$ $POWER = .000$
 $GINGAL = 3.000$ $RUDER = .000$

$MACH (1) = 2.496$ $ALPHA (1) = -7.660$ $PTO = 2311.667$ $PO = 136.000$ $RAT = 2.944$ $Q = 594.000$

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.2812	.3467		.3904
.250			.0082		.0373	
.362	.0376					
.400				-.0519		
.419		-.0396				
.550			-.0652	-.0879		
.600						-.0862
.697	-.0312					
.700			-.1037	-.1154		
.725					-.1066	
.750						
.806		-.0181				
.832	.0278			-.1066		
.850			-.0175			
.900						-.0879
.951						
.966		.0840				

$MACH (1) = 2.496$ $ALPHA (2) = -5.850$ $PTO = 2311.667$ $PO = 136.000$ $RAT = 2.944$ $Q = 594.000$

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.2339	.2953		.3547
.250			-.0239		.0156	
.362	.0087					
.400				-.0817		
.419		-.0847				
.550			-.1077	-.1087		
.600						-.0826
.697	-.0806					
.700			-.1326			
.725						
.750		-.1250				
.806						-.1225
.832	.0038					

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)
 ANES 87-710 1A12C ON T1 S1 UPPER WING PRESSURE (UB2093)

MACH (1) = 2.498 ALPHA (2) = -5.850

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .8750 .7800 .6870

X/C

.890
 .900
 .931
 .968
 .0818
 .0313
 -.0431
 -.1288
 -.1084

MACH (1) = 2.498 ALPHA (3) = -5.850 PTO = 2515.667 PO = 156.000 R/FT = 2.944 Q = 594.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .8750 .7800 .6870

X/C

.090
 .290
 .382
 .400
 .419
 .550
 .800
 .997
 .700
 .725
 .750
 .808
 .832
 .850
 .900
 .951
 .968
 .0370
 .1977
 -.0575
 -.0188
 -.0655
 -.1277
 -.1284
 -.0890
 -.1383
 -.0821
 -.0189
 -.0648
 .0086
 .1977
 -.0575
 -.0188
 -.0655
 -.1277
 -.1284
 -.0890
 -.1383
 -.0821
 -.0189
 -.0648
 .0086
 .3469
 -.0075
 -.1023
 -.0855
 -.1277
 -.1284
 -.0890
 -.1383
 -.0821
 -.0189
 -.0648
 .0086
 -.0943
 -.1584
 -.1409
 -.1205

MACH (1) = 2.498 ALPHA (4) = -5.850 PTO = 2515.667 PO = 156.000 R/FT = 2.944 Q = 594.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .8750 .7800 .6870

X/C

.090
 .250
 .382
 .400
 .419
 .550
 .800
 .997
 .1752
 -.0912
 -.0442
 -.1072
 -.1454
 -.1414
 -.1097
 .1955
 -.0563
 -.1104
 -.1454
 -.1414
 -.1097
 .3274
 -.0563
 -.1104
 -.1454
 -.1414
 -.1097



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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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MACH (1) = 2.499 ALPHA (4) = -1.420 (LB/2093)

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8670

X/C

.700					
.725					
.750					
.808					
.832					
.850					
.900					
.941					
.966					

MACH (1) = 2.498 ALPHA (5) = .140

PTO = 2515.667 PO = 136.000 R/PT = 2.944 Q = 994.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8670

X/C

.090					
.250					
.362					
.400					
.419					
.550					
.600					
.697					
.700					
.725					
.750					
.808					
.832					
.850					
.900					
.951					
.966					

DATE 03 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

AVES N7-710 A12C ON T1 S1 UPPER WING PRESSURE (UB2093)

MACH (1) = 2.499 ALPHA (6) = 2.160 P/Q = 2315.667 P/Q = 136.000 P/FT = 2.944 Q = 594.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/C .2950 .4270 .5340 .6750 .7800 .8870

X/C	.090	.0949	.1859	.2689		
.250		11.20		-.0664		
.362	-.0737					
.400			-.1368			
.419						
.520						
.600						
.697	-.1157					
.750						
.725						
.750						
.806						
.822	-.0725					
.850						
.900						
.951						
.966	-.0133					

MACH (1) = 2.499 ALPHA (7) = 4.140 P/Q = 2315.667 P/Q = 136.000 R/FT = 2.944 Q = 594.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/C .2950 .4270 .5340 .6750 .7800 .8870

X/C	.090	.1054	.1661	.2459		
.250		-.1275		-.0758		
.362	-.0626					
.400			-.1423			
.419						
.520						
.600						
.697	-.1253					
.750						
.725						
.750						
.806						
.822	-.0661					
.850						
.900						
.951						
.966	-.0267					



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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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MACH (1) = 2.499 ALPHA (8) = 6.130 PTD = 2315.667 PO = 136.000 R/PT = 2.944 Q = 594.000
 (LB/2093)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2950 .4270 .5340 .6730 .7800 .8870

X/C

.050	.0896	.1465	.2203
.250	-.1298	-.0901	
.362	-.0878		
.400		-.1485	
.419	-.1632		
.550	-.1819	-.1767	
.600			-.1296
.697	-.1349		
.700		-.1887	
.725	-.1724		
.750		-.1748	
.806	-.1892		
.832	-.1014		
.850		-.1700	
.930	-.1807		-.1598
.951	-.1596		
.966	-.0317		

MACH (1) = 2.499 ALPHA (9) = 8.170 PTD = 2315.667 PO = 136.000 R/PT = 2.944 Q = 594.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2950 .4270 .5340 .6730 .7800 .8870

X/C

.050	.0782	.1265	.1950
.250	-.1341	-.1032	
.362	-.0935		
.400		-.1528	
.419	-.1890		
.550	-.1852	-.1815	
.600			-.1350
.697	-.1461		
.700		-.1887	
.725	-.1759		
.750		-.1786	
.806	-.1331		
.832	-.1285		
.850		-.1755	
.930	-.1812		-.1668
.951	-.1847		
.966	-.0365		

AVES 87-710 1A12C 01 T1 S1 UPPER WING PRESSURE (UB2098) (18 APR 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 993.0000 IN.
 LREF = 1328.0000 IN. YMRP = .0000 IN.
 BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CPR = 31.280 SCMR = .916
 GIMBAL = 3.000 RUDDER = .000

MACH (1) = 2.499 ALPHA (1) = -7.930 PTO = 2307.000 PO = 135.222 R/FT = 2.915 Q = 591.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.2804	.3496		.3938
.250			.0080		.0399	
.362	.0377					
.400				-.0502		
.419		-.0407				
.550			-.0850	-.0863		
.600						-.0692
.697	-.0314					
.700				-.1145		
.725			-.1018			
.750					-.1069	
.806		-.0178				
.832	.0279			-.1061		
.850						-.0868
.900			-.0155			
.951		.0856				
.966						

MACH (1) = 2.499 ALPHA (2) = -5.940 PTO = 2307.000 PO = 135.222 R/FT = 2.915 Q = 591.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.2350	.2970		.3566
.250			-.0240		.0173	
.362	.0078					
.400				-.0792		
.419		-.0680				
.550			-.1069	-.1078		
.600						-.0839
.697	-.0306					
.700				-.1323		
.725			-.1202			
.750					-.1220	
.806		-.0423				
.832	.0043					

(LB 2056)

MACH (1) = 2.499 ALPHA (2) = -5.940

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.850
.900
.951
.966

-.1259
-.0421
.0315
.0825

-.1057

MACH (1) = 2.499 ALPHA (3) = -3.960 PTO = 2307.000 PO = 135.222 R/PT = 2.915 Q = 591.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050
.250
.362
.400
.419
.550
.600
.697
.700
.725
.750
.806
.832
.850
.900
.951
.966

.1966 .2394
-.0558
-.0201
-.0872
-.1269
-.1276
-.1457
-.1355
-.0828
-.0191
-.0641
-.0067
-.0374

.3393
-.0092
-.1034
-.1414
-.1210
-.1371
-.0958

MACH (1) = 2.499 ALPHA (4) = -1.940 PTO = 2307.000 PO = 135.222 R/PT = 2.915 Q = 591.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050
.250
.362
.400
.419
.550
.600
.697

.1695 .1961
-.0901
-.0437
-.1104
-.1069
-.1449
-.1425

.3281
-.0597
-.1095



(LB 2098)

AVES 07-710 1A12C 01 T1 S1 UPPER WING PRESSURE

MACH (1) = 2.499 ALPHA (4) = -1.940

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.700						
.725						
.750						
.806						
.832						
.850						
.900						
.951						
.966						

MACH (1) = 2.499 ALPHA (5) = .070 γ_{TC} = 2507.000 P/Q = 135.222 P/FT = 2.915 Q = 491.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090						
.250						
.362						
.400						
.419						
.550						
.600						
.697						
.700						
.725						
.750						
.806						
.832						
.850						
.900						
.951						
.966						



DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LBZ098)

AWES 07-710 1A12C 01 T1 S1 UPPER WING PRESSURE

MACH (1) = 2.499 ALPHA (6) = 2.020 PTO = 2307.000 PO = 135.222 R/PT = 2.915 Q = 591.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C					
.050	.0937	.1878			.2709
.250	-.1146			-.0659	
.362	-.0733				
.400		-.1390			
.419	-.1369				
.550	-.1711	-.1689			
.600					-.1173
.697	-.1157				
.700		-.1643			
.723		-.1665		-.1642	
.750					
.808	-.1204				
.832	-.0723				
.850		-.1764			
.900		-.1320			-.1463
.951	-.0716				
.966	-.0117				

MACH (1) = 2.499 ALPHA (7) = 4.030 PTO = 2307.000 PO = 135.222 R/PT = 2.915 Q = 591.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C					
.050	.1044	.1661			.2478
.250	-.1291			-.0798	
.362	-.0810				
.400		-.1435			
.419	-.1518				
.550	-.1807	-.1717			
.600					-.1218
.697	-.1240				
.700		-.1860			
.723		-.1693			
.750					-.1708
.808	-.1375				
.832	-.0858				
.850		-.1750			
.900	-.1809				-.1557
.951	-.0978				
.966	-.0261				

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-710 1A12C OF T1 S1 UPPER WING PRESSURE (LB/2096)

MACH (1) = 2.499 ALPHA (8) = 6.020 P70 = 2307.000 P0 = 135.222 R/FY = 2.915 Q = 591.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .088 .1468 .2211
 .290 -.1289 -.0889
 .362 -.0870 -.1502
 .400 .419 -.1637 -.1910 -.1772
 .590 .600 -.1283
 .697 -.1343
 .700 .725 -.1688
 .750 .806 -.1751
 .832 -.1690
 .890 .900 -.1701
 .951 -.1600
 .966 -.1370
 .966 -.0304

MACH (1) = 2.499 ALPHA (9) = 8.040 P70 = 2307.000 P0 = 135.222 R/FY = 2.915 Q = 591.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .0778 .1269 .1963
 .290 -.1333 -.1030
 .362 -.0934 -.1327
 .400 .419 -.1696
 .590 .600 -.1852 -.1821
 .697 -.1449
 .700 .725 -.1888
 .750 .806 -.1697
 .832 -.1814
 .890 .900 -.1738
 .951 -.1615
 .966 -.1827
 .966 -.0350



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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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AVES 87-710 1A12C OF 11 SL UPPER WING PRESSURE (UB2097) (16 APR 74)

REFERENCE DATA

SREF = 2990.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1326.0000 IN. YREF = .0000 IN.
 BREF = 1326.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 GIMBAL = 4.000 RUDDER = .000

MACH (1) = 2.496 ALPHA (1) = -7.840 PTO = 2312.444 PO = 136.000 R/P T = 3.003 Q = 593.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.2610	.3324		.3932
.250			.0083		.0332	
.362	.0412					
.400				-.0494		
.419		-.0332				
.550		-.0827	-.0652			
.600						-.0874
.697	-.0269					
.700				-.1117		
.725		-.1019			-.1050	
.750						
.806		-.0140				
.832	.0324			-.1034		
.850			-.0146			-.0646
.900						
.951		.0834				
.996	.0947					

MACH (1) = 2.496 ALPHA (2) = -5.840 PTO = 2312.444 PO = 136.000 R/P T = 3.003 Q = 593.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.2365	.2983		.3556
.250			-.0236		.0133	
.362	.0127					
.400				-.0778		
.419		-.0801				
.550		-.1048	-.1049			
.600						-.1004
.697	-.0465					
.700				-.1290		
.725		-.1196				
.750						-.1196
.806		-.0374				
.951						
.996	.0101					

(UB2097)

AWES 87-110 1A12C OX T1 S1 UPPER WING PRESSURE

MACH (1) = 2.498 ALPHA (2) = -5.840

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.850
.900
.951
.966
X/C
-1.225
-0.0397
0.0373
-1.026

MACH (1) = 2.498 ALPHA (3) = -3.820 PTO = 2312.444 PO = 136.000 R/PT = 3.005 Q = 593.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090
.250
.362
.400
.419
.550
.600
.697
.700
.725
.750
.808
.832
.850
.900
.951
.966
X/C
.2008
-0.0340
-0.0111
-0.0992
-0.0838
-0.1235
-0.1245
-0.1353
-0.1356
-0.1389
-0.0598
0.0125
-0.1191
-0.0936

MACH (1) = 2.498 ALPHA (4) = -1.840 PTO = 2312.444 PO = 136.000 R/PT = 3.005 Q = 593.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090
.250
.362
.400
.419
.550
.600
.697
X/C
.1761
-0.0362
-0.1053
-0.1025
-0.1407
-0.1401
-0.1058



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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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(US2097)

MACH (1) = 2.498 ALPHA (4) = -1.840

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.700						
.725						
.750						
.808						
.832						
.850						
.900						
.951						
.966						

MACH (1) = 2.498 ALPHA (5) = .170 PTO = 2312.444 PO = 136.000 R/FT = 3.003 Q = 593.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090						
.250						
.382						
.400						
.419						
.550						
.600						
.697						
.700						
.725						
.750						
.808						
.832						
.850						
.900						
.951						
.966						

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

WING (1) = 2.496 ALPHA (6) = 2.140 PTO = 2312.444 PO = 136.000 R/F/T = 3.005 Q = 593.111
 ANES 87-710 1A12C O1 T1 S1 UPPER WING PRESSURE (LB/IN²)

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .8990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .0984 .1889 .2706
 .250 -.1130 -.0873
 .362 -.0895 -.1363
 .400
 .419 -.1387 -.1701 -.1657 -.1156
 .550
 .600
 .697 -.1118
 .700
 .725 -.1690 -.1819
 .750
 .808 -.1178
 .832 -.0890 -.1782
 .850
 .900 -.1293 -.1445
 .951 -.0884
 .966 -.0098

WING (1) = 2.496 ALPHA (7) = 4.180 PTO = 2312.444 PO = 136.000 R/F/T = 3.005 Q = 593.111

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .8990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .1071 .1676 .2470
 .250 -.1271 -.0808
 .362 -.0786 -.1425
 .400
 .419 -.1512 -.1602 -.1695 -.1215
 .550
 .600
 .697 -.1821
 .700
 .725 -.1745 -.1650
 .750
 .808 -.1319
 .832 -.0817
 .850
 .900 -.1611 -.1745 -.1528
 .951 -.0948
 .966 -.0800



DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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MACH (1) = 2.498 ALPHA (8) = 8.160 PTO = 2312.444 PO = 136.000 R/PY = 3.003 Q = 993.111
 UNES 87-710 1A12C 01 T1 S1 UPPT WING PRESSURE (LBZ097)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2590	.4270	.5340	.6750	.7800	.8870
X/C						
.050			.0922	.1491		.2213
.250			-.1283		-.0916	
.362	-.0646			-.1478		
.400						
.419		-.1630				
.550			-.1811	-.1752		
.600						-.1283
.697	-.1324					
.700				-.1872		
.725			-.1716			-.1740
.750						
.806		-.1656				
.832	-.0960			-.1683		
.850			-.1566			-.1578
.900						
.951		-.1355				
.966	-.0273					

MACH (1) = 2.498 ALPHA (9) = 8.160 PTO = 2312.444 PO = 136.000 R/PY = 3.003 Q = 993.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2590	.4270	.5340	.6750	.7800	.8870
X/C						
.050			.0816	.1283		.1960
.250			-.1319		-.1050	
.362	-.0919			-.1530		
.400						
.419		-.1873				
.550			-.1842	-.1814		
.600						-.1349
.697	-.1433					
.700				-.1895		
.725			-.1752			-.1793
.750						
.806		-.1799				
.832	-.1242					
.850				-.1747		
.900			-.1813			-.1652
.951		-.1803				
.966	-.0310					

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

DATE 03 DEC 74

(UP:0099) (16 APR 74)

AVES 67-710 1A12C ON T1 S1 UPPER WING PRESSURE

DEPENDENT DATA

SPR = 2090.0000 SQ.FT. XREF = 953.0000 IN.
LREF = 1326.0000 IN. YREF = .0000 IN.
BREF = 1326.0000 IN. ZREF = 400.0000 IN.
SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 31.260 SWPR = .916
G1-BAL = 4.000 RUDDER = .000

MACH (1) = 2.496 ALPHA (1) = -7.620 PTD = 2310.000 PD = 135.778 R/PT = 2.919 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7900	.8870
X/C	.090	.2801	.3506	.3926		
.290		.0271		.0328		
.362	.0401					
.400			-.0514			
.419		-.0363				
.550			-.0437	-.0877		
.600					-.0640	
.697	-.0266					
.700			-.1152			
.725		-.1020			-.1075	
.750						
.806		-.0149				
.822	.0303			-.1065		
.850					-.0864	
.900		-.0159				
.951		.0680				
.966	.0936					

MACH (1) = 2.496 ALPHA (2) = -5.800 PTD = 2310.000 PD = 135.778 R/PT = 2.919 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7900	.8870
X/C	.090	.2337	.2949	.3546		
.290		-.0256		.0121		
.362	.0060					
.400			-.0806			
.419		-.0655				
.550			-.1069	-.1064		
.600					-.0935	
.697	-.0514					
.700			-.1332			
.725		-.1206				
.750					-.1241	
.806						
.822	.0036	-.0410				



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-710 1A12C ON T1 S1 UPPER WING PRESSURE (LB/2099)

MACH (1) = 2.498 ALPHA (2) = -5.800

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6750 .7800 .8870

X/C

.890 -.1275
.900 -.0411
.911 .0336
.926 .0637

-1.084

MACH (1) = 2.498 ALPHA (3) = -3.820 PTO = 2510.000 PO = 135.778 R/PT = 2.919 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6750 .7800 .8870

X/C

.090 .1978 .2349
.290 -.0580
.362 -.0183

-0.116

.3908

.400 -.1031

-0.0644

.419

.550 -.1274

.600 -.1284

.697 -.0898

.700 -.1463

.725 -.1374

.750 -.1379

.806 -.0898

.822 -.0180

.870 -.0840

.900 .0093

.951 .0382

.966 .0382

-0.0951

-0.1213

MACH (1) = 2.498 ALPHA (4) = -1.820 PTO = 2510.000 PO = 135.778 R/PT = 2.919 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6750 .7800 .8870

X/C

.090 .1728 .1951
.290 -.0918
.362 -.0441

.3270

-0.0573

.400

.419 -.1119

.450 -.1071

.550 -.1453

.600 -.1453

.697 -.1087



(LBZ099)

AVES 87-710 1A12C ON T1 S1 UPPER WING PRESSURE

MACH (1) = 2.498 ALPHA (4) = -1.820

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.700						
.725						
.750						
.806						
.832						
.850						
.900						
.951						
.966						

MACH (1) = 2.498 ALPHA (5) = .180 PTO = 2310.000 PO = 135.778 RPY = 2.519 Q = 392.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050						
.250						
.362						
.400						
.419						
.550						
.600						
.697						
.700						
.725						
.750						
.806						
.832						
.850						
.900						
.951						
.966						



DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 201

AMES 87-710 1A12C OR T1 S1 UPPER WING PRESSURE (LBZ099)

MACH (1) = 2.498 ALPHA (6) = 2.140 PTO = 2310.000 PO = 135.778 R/PT = 2.919 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.0944	.1850		.2701
.250			-.1145		-.0707	
.362	-.0730					
.470				-.1394		
.419						
.550				-.1711	-.1696	
.600						-.1176
.697	-.1148					
.700					-.1851	
.725				-.1674		
.750					-.1648	
.806				-.1196		
.832	-.0715					
.850				-.1767		
.900				-.1335		-.1462
.951					-.0706	
.966	-.0120					

MACH (1) = 2.498 ALPHA (7) = 4.170 PTO = 2310.000 PO = 135.778 R/PT = 2.919 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.1036	.1644		.2457
.250			-.1292		-.0842	
.362	-.0617					
.400				-.1438		
.419						
.550				-.1812	-.1722	
.600						-.1236
.697	-.1239					
.700					-.1887	
.725				-.1710		
.750					-.1717	
.806						
.832	-.0657					
.850				-.1770		
.900				-.1615		-.1556
.951					-.0982	
.966	-.0256					

(UB 2099)

MACH (1) = 2.498 ALPHA (8) = 6.280 PTO = 2510.000 PO = 135.778 R/PT = 2.919 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7900	.8870
X/C						
.050			.0883	.1462		.2193
.250			-.1303		-.0936	
.362	-.0890					
.400			-.1494			
.419		-.1644				
.550			-.1835	-.1764		
.600						-.1293
.697	-.1345					
.700				-.1679		
.725			-.1688			
.750					-.1755	
.806		-.1702				
.832	-.0999			-.1683		
.850						
.900			-.1590			-.1595
.951		-.1396				
.966	-.0294					

MACH (1) = 2.498 ALPHA (9) = 6.230 PTO = 2510.000 PO = 135.778 R/PT = 2.919 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.0777	.1253		.1938
.250			-.1349		-.1088	
.362	-.0829					
.400				-.1545		
.419		-.1695				
.550			-.1863	-.1835		
.600						-.1362
.697	-.1458					
.700				-.1895		
.725			-.1734			
.750					-.1809	
.806		-.1828				
.832	-.1264					
.850			-.1754			-.1675
.900			-.1617			
.951		-.1646				
.966	-.0345					

DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AWES 87-710 1A12C 01 T1 S1 UPPER WING PRESSURE (LB/IN²) (16 APR 74)

PARAMETRIC DATA

BETA = .000 POWER = .000
GIMBAL = 4.000 RUDDER = .000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190 SCALE

MACH (1) = 3.002 ALPHA (1) = -7.660 PTO = 2311.889 PO = 63.000 R/P T = 2.226 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.050			.2668	.3596		.3895
.250			.0175		.0532	
.362	.0412					
.400				-.0274		
.419			-.0258			
.550			-.0823	-.0646		
.600						-.0092
.697	-.0222					
.700				-.0868		
.725			-.0789			
.750					-.0725	
.806			-.0315			
.832	.0081			-.0879		
.850			-.0408			-.0590
.900						
.951		.0207				
.966	.0605					

MACH (1) = 3.002 ALPHA (2) = -5.880 PTO = 2311.889 PO = 63.000 R/P T = 2.226 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.050			.2346	.3199		.3508
.250			-.0079		.0353	
.362	.0139					
.400				-.0431		
.419			-.0430			
.550			-.0776	-.0811		
.600						-.0169
.697	-.0380					
.700				-.1004		
.725			-.0536			
.750						-.0796
.806						
.832		-.0486				
.900						
.951						
.966	-.0118					

DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(UB 2102)

MACH (1) = 3.002 ALPHA (2) = -5.880

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.890
.900
.951
.966
-1.0072
-1.022
-1.0679

MACH (1) = 3.002 ALPHA (3) = -3.900 PTD = 2311.889 PO = 63.000 R/FT = 2.226 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.050
.250
.362
.405
.419
.550
.600
.697
.700
.725
.750
.806
.832
.850
.900
.951
.966
.0172
-1.027
-1.025
-1.0557
-1.0609
-1.0903
-1.0925
-1.0990
-1.1026
-1.109
-1.0818
-1.0780

MACH (1) = 3.002 ALPHA (4) = -1.870 PTD = 2311.889 PO = 63.000 R/FT = 2.226 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.090
.250
.362
.400
.419
.550
.600
.697
.700
-1.021
-1.021
-1.0607
-1.0320
-1.0361
-1.0692



DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(UB 7102)

AVES 87-710 1A12C Q1 T1 S1 UPPER WING PRESSURE

MACH (1) = 3.002 ALPHA (4) = -1.870

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
 .700 -.1144
 .725 -.1094
 .750 -.0972
 .808 -.0846
 .832 -.0541
 .850 -.1165
 .900 -.0983
 .951 -.0894
 .966 -.0466
 -.0043

MACH (1) = 3.002 ALPHA (5) = .120 PTO = 2311.889 PO = 69.000 R/PT = 2.226 Q = 398.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
 .050 .1915 .2165 .3140
 .250 -.0584 -.0263
 .362 -.0459
 .400 -.0682
 .419 -.0671
 .550 -.1100 -.1072
 .600 -.0418
 .697 -.0820
 .700 -.1240
 .725 -.1137
 .750 -.1091
 .808 -.0960
 .832 -.0681
 .850 -.1230
 .900 -.1081
 .951 -.0652
 .966 -.0237



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AVES 07-710 1A12C ON TI SI UPPER WING PRESSURE (UBZ102)

MACH (1) = 3.002 ALPHA (6) = 2.120 PTO = 2311.889 PO = 63.000 R/PT = 2.226 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.1203	.1953	.2853
.250	-.0634	-.0348	
.362	-.0623		
.400		-.0782	
.419	-.0987		
.590		-.1108	-.1162
.600			-.0486
.697	-.0921		
.700		-.1308	
.725		-.1165	-.1086
.750			
.806	-.1078		
.832	-.0776	-.1269	-.1023
.850		-.1176	
.900	-.0849		
.931			
.966	-.0326		

MACH (1) = 3.002 ALPHA (7) = 4.120 PTO = 2311.889 PO = 63.000 R/PT = 2.226 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.1031	.1832	.2871
.250	-.0692	-.0499	
.362	-.0713		
.400		-.0818	
.419	-.1080		
.590		-.1229	-.1180
.600			-.0536
.697	-.0949		
.700		-.1319	
.725		-.1176	-.1129
.740			
.806	-.1106		
.832	-.0910	-.1301	-.1073
.850		-.1237	
.900			
.931	-.1086		
.966	-.0416		



DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 207

MACH (1) = 3.002 ALPHA (8) = 6.100 PTC = 2311.889 PO = 65.000 R/PT = 2.226 Q = 396.000
 (LBZ102)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.1124	.1288		.2377
.250			-.0688		-.0639	
.362	-.0785					
.400				-.0668		
.419		-.1139				
.550			-.1250	-.1219		
.600						-.0804
.697	-.1035					
.700				-.1330		
.725			-.1212			
.750					-.1180	
.806		-.1230				
.832	-.0989			-.1305		
.850			-.1287			-.1141
.900						
.951		-.1265				
.966	-.0484					

MACH (1) = 3.002 ALPHA (9) = 8.130 PTC = 2311.889 PO = 65.000 R/PT = 2.226 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.3557	.1417		.2149
.250			-.0741		-.0746	
.362	-.0788					
.400				-.0907		
.419		-.1181				
.550			-.1250	-.1255		
.600						-.0685
.697	-.1096					
.700				-.1337		
.725			-.1208			
.750					-.1222	
.806		-.1308				
.832	-.1126					
.850				-.1330		
.900			-.1298			-.1180
.951		-.1247				
.966	-.0973					

AMES 87-710 A12C ON T1 S1 UPPER WING PRESSURE (032103) (16 APR 74)

REFERENCE DATA

SREF = 8690.0000 SQ.FT. WREF = 953.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CDR = 26.860 SREFR = .768
 C14EAL = 4.000 RUDDER = .000

MACH (1) = 3.002 ALPHA (1) = -7.860 PTO = 2509.333 PO = 62.778 R/FT = 2.220 Q = 395.333

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.2688	.3599		.3599
.250			.0175		.0536	
.362	.0420					
.400				-.0278		
.419		-.0270				
.550			-.0614	-.0647		
.600						-.0103
.697	-.0233					
.700				-.0877		
.725			-.0751			
.750					-.0716	
.806		-.0308				
.832	.0072			-.0892		
.850			-.0410			-.0602
.900						
.951		.0215				
.966	.0607					

MACH (1) = 3.002 ALPHA (2) = -5.980

PTO = 2509.333 PO = 62.778 R/FT = 2.220 Q = 395.333

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.2353	.3200		.3512
.250			-.0072		.0346	
.362	.0128					
.400				-.0452		
.419		-.0451				
.550			-.0777	-.0828		
.600						-.0193
.697	-.0397					
.700				-.1020		
.725			-.0883			
.750					-.0800	
.806		-.0484				
.832	-.0122					

AMES 87-710 1A12C 01 T1 S1 UPPER WING PRESSURE (UBZ103)

$$\text{WACH} (1) = 3.002 \quad \text{ALPHA} (2) = -5.000$$

SECTION (1) ORBITER WING

y/8	.2990	.4270	.5340	.6750	.7800	.8870
-----	-------	-------	-------	-------	-------	-------

$\times C$	
.850	-.1035
.900	-.0615
.951	-.0025
.966	.0370

WACH (1) =	5.002	ALPHA (5) =	-3.870	PTD	= 2309.533	PO	= 62.778	RFT	= 2.220	Q	= 395.533
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SECTION (1) ORBITER WING

y/8	.2990	.4270	.5340	.6750	.7800	.8870
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[illegible]

WACH (1) =	3.002	ALPHA (4) =	-1.680	P10	= 2309.533	PO	= 62.778	R/F	= 2.220	Q	= 395.533
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DEPENDENT VARIABLE CP
SECTION (1) ORBITER WING

y/8	.2990	.4270	.5340	.6730	.7400	.8870
-----	-------	-------	-------	-------	-------	-------

χ/C					
.050	.1117	.2046			.3373
.250	-.0425				-.0344
.342	-.0262				
.400		-.0619			
.419		-.0776			
.550			-.1024	-.0993	
.620					-.0377
.667				-.0692	

DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AVES 87-710 1A12C 01 T1 S1 UPPER WING PRESSURE (UB2103)

MACH (1) = 3.002 ALPHA (4) = -1.880

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/E .2390 .4270 .5340 .6750 .7800 .8870

X/C .700 .725 .750 .609 .432 .450 .551 .566

-1.160 -1.1032 -1.1000

-1.0671

-0.553 -1.185

-0.0971

-0.0466

-0.0054

-0.0887

MACH (1) = 3.002 ALPHA (5) = .120 PTO = 2909.333 PO = 62.778 R/PT = 2.220 Q = 965.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/E .2390 .4270 .5340 .6750 .7800 .8870

X/C .090 .250 .362 .400 .419 .550 .600 .657

.1517 .2168

-0.0377

-0.0700

-0.2196

-0.1107

-0.1079

-0.0824

-0.1255

-0.1054

-0.0953

-0.0681

-0.1226

-0.1065

-0.0636

-0.0272

.3132

-0.0253

-0.0411

-0.1047

-0.0944

DATE OF DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-710 1A12C OX T1 S1 UPPER WING PRESSURE (UB2103)

MACH (1) = 3.002 ALPHA (0) = 2.110 PTO = 2509.333 PO = 62.776 R/PT = 2.220 Q = 395.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .8730 .7800 .6870

X/C .090 .1149 .1948 .2830

.250 -.0671 -.0404

.362 -.0621 -.0760

.400 -.0975 -.1155

.419 -.1179 -.1155 -.0491

.550 -.0829 -.1267

.600 -.1095 -.1116

.697 -.1066 -.1255

.700 -.1134 -.1027

.725 -.0804 -.0690

.750 -.0342

.806

MACH (1) = 3.002 ALPHA (7) = 4.130 PTO = 2509.333 PO = 62.776 R/PT = 2.220 Q = 395.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .8730 .7800 .6870

X/C .090 .0959 .1607 .2667

.250 -.0704 -.0512

.362 -.0716 -.0690

.400 -.1051 -.1202

.419 -.1229 -.1202 -.0545

.550 -.0993 -.1264

.600 -.1091 -.1141

.697 -.1190 -.1264

.700 -.1209 -.1089

.725 -.1033

.750

.806

.951

.966

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES RP-P10 1A12C ON T1 S1 UPPER WING PRESSURE (LB/IN²)

WACH (1) = 3.002 ALPHA (8) = 6.160 PTO = 2509.333 PO = 62.778 R/FT = 2.220 Q = 395.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7400	.8870
X/C						
.090			.1108	.1595		.2385
.250			-.0701		-.0616	
.362	-.0712					
.400				-.0870		
.419			-.1108			
.550				-.1255	-.1227	
.600						-.0585
.697	-.0997					
.710				-.1259		
.725			-.1098			-.1134
.750						
.816			-.1258			
.822	-.0985			-.1241		
.850						-.1110
.940			-.1209			
.951			-.1172			
.966	-.0390					

WACH (1) = 3.002 ALPHA (9) = 6.150 PTO = 2509.333 PO = 62.778 R/FT = 2.220 Q = 395.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7400	.8870
X/C						
.090			.0943	.1420		.2154
.250			-.0745		-.0753	
.362	-.0706					
.470				-.0913		
.419			-.1166			
.550				-.1272	-.1281	
.600						-.0668
.697	-.1105					
.700				-.1288		
.725			-.1102			-.1174
.750						
.816			-.1291			
.812	-.1123					
.810				-.1299		
.850			-.1209			-.1168
.911			-.1187			
.966	-.0327					



DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-710 1A12C OR T1 S1 UPPER WING PRESSURE (LBZ108) (16 APR 74)

REFERENCE DATA

WREF = 2000.0000 SQ.FT. WREF = 955.0000 IN.
 LREF = 1328.0000 IN. WREF = .0000 IN.
 BREF = 1328.0000 IN. WREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 GIMBAL = 4.000 RUDDER = .000

MACH (1) = 3.499 ALPHA (1) = -7.750 PTO = 2314.444 PO = 30.000 R/FT = 1.740 Q = 280.556

SECTION (1) ORBITAL WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .2890 .3593 .4031
 .290 .0440 .0634
 .382 .0397 .0123
 .400 .0115 .0399 .0382
 .419 .0403 .0399 .0382
 .590 .097 -0.0142 .0677
 .600 .000 .0636 .0394
 .700 .000 .0394 .0394
 .725 .000 .0394 .0394
 .750 .000 .0394 .0394
 .808 .000 .0394 .0394
 .832 .000 .0394 .0394
 .850 .000 .0394 .0394
 .900 .000 .0394 .0394
 .951 .000 .0394 .0394
 .966 .000 .0394 .0394

MACH (1) = 3.499 ALPHA (1) = -5.780 PTO = 2314.444 PO = 30.000 R/FT = 1.740 Q = 280.556

SECTION (1) ORBITAL WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .2590 .3150 .3707
 .290 .0223 .0271
 .342 .0802 .0072
 .400 .000 .0072
 .419 .000 .0072
 .550 .000 .0072
 .600 .000 .0072
 .697 .000 .0072
 .700 .000 .0072
 .725 .000 .0072
 .750 .000 .0072
 .808 .000 .0072
 .832 .000 .0072
 .850 .000 .0072
 .900 .000 .0072
 .951 .000 .0072
 .966 .000 .0072

DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(UB2106)

AVES 87-710 1A12C ON T1 S1 UPPER WING PRESSURE

MACH (1) = 3.499 ALPHA (4) = -1.740

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6730 .7950 .8870

X/C
 .700 -.0872
 .725 -.0780
 .750 -.0709
 .806 -.0713
 .832 -.0544
 .850 -.0894
 .900 -.0812
 .951 -.0572
 .966 -.0452
 .982 -.0623

MACH (1) = 3.499 ALPHA (5) = .250 PTC = 2314.444 PO = 30.000 R/FT = 1.740 Q = 200.356

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7950 .8870

X/C
 .050 .1427 .2050 .3250
 .250 -.0207 -.0208
 .362 -.0321
 .400 -.0648
 .419 -.0295
 .550 -.0751
 .600 -.0758
 .697 -.0610
 .700 -.0932
 .725 -.0818
 .750 -.0747
 .806 -.0776
 .832 -.0631
 .850 -.0916
 .900 -.0661
 .951 -.0873
 .966 -.0234



DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AXES 87-710 1A12C Q1 T1 S1 UPPER WING PRESSURE (LB/100)

MACH (1) = 3.499 ALPHA (6) = 2.260 PTO = 2314.444 PO = 30.000 R/FT = 1.740 Q = 260.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.1164	.1939		.2833
.250			-.0278		-.0290	
.362	-.0431					
.400				-.0350		
.419		-.0730				
.550			-.0817	-.0802		
.600						-.0053
.697	-.0675					
.700			-.0954			
.725			-.0862			
.750				-.0796		
.806		-.0866				
.832	-.0730			-.0949		
.850			-.0911		-.0689	
.900		-.0817				
.951						
.966	-.0420					

MACH (1) = 3.499 ALPHA (7) = 4.250 PTO = 2314.444 PO = 30.000 R/FT = 1.740 Q = 260.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.1000	.1781		.2764
.250			-.0349		-.0410	
.362	-.0523					
.400				-.0405		
.419		-.0773				
.550			-.0655	-.0872		
.600						-.0096
.697	-.0768					
.700			-.0998			
.725			-.0694			
.750					-.0856	
.806		-.0904				
.832	-.0735					
.850			-.0998			
.900		-.0976				-.0749
.951		-.0931				
.966	-.0474					



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB2106)

MACH (1) = 3.499 ALPHA (8) = 6.29C PTO = 2314.444 PO = 30.000 R/PT = 1.740 Q = 280.556

AVES 07-710 1A12C Q1 T1 S1 UPPER WING PRESSURE

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.8900	.4270	.5340	.6730	.7800	.8870
X/C						
.090		.1081	.1629			.2301
.250		-.0349		-.0514		
.362	-.0854					
.400			-.0437			
.419		-.0882				
.550			-.0915	-.0872		
.600						-.0169
.697	-.0680					
.700			-.1003			
.725			-.0905		-.0694	
.750						
.806		-.0996				
.832	-.0683			-.1019		
.850			-.0993			-.0798
.900		-.0996				
.951						
.966	-.0577					

MACH (1) = 3.499 ALPHA (9) = 6.240 PTO = 2314.444 PO = 30.000 R/PT = 1.740 Q = 280.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.8900	.4270	.5340	.6730	.7800	.8870
X/C						
.090		.1022	.1401			.2100
.250		-.0354		-.0806		
.362	-.0870					
.400			-.0486			
.419		-.0844				
.550			-.0866	-.0905		
.600						-.0276
.697	-.0844					
.700			-.1063			
.725		-.0900				
.750					-.0927	
.806		-.0956				
.832	-.0831			-.1063		
.850			-.1006			-.0841
.900						
.951		-.0956				
.966	-.0566					

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-71.0 1A12C OF T1 S1 UPPER WING PRESSURE (LB/2107) (16 APR 74)

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 23.860 SPMR = .826
GIMBAL = 4.000 RUDDER = .000

REFERENCE DATA

SREF = 2890.0000 SQ.FT. XREF = 9.5.0000 IN.
LREF = 1328.0000 IN. YREF = .0000 IN.
BREF = 1328.0000 IN. ZREF = 400.0000 IN.
SCALE = .0190 SCALE

MACH (1) = 3.499 ALPHA (1) = -7.750 PTO = 2312.778 PO = 30.222 R/PT = 1.733 Q = 280.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C					
.050	.2871	.3606	.0635	.4085	
.250	.0452				
.362	.0416				
.400		.0111			
.419					
.550					
.600					
.697					
.700					
.725					
.750					
.806					
.832					
.890					
.900					
.951					
.966					

MACH (1) = 3.499 ALPHA (2) = -5.720 PTO = 2312.778 PO = 30.222 R/PT = 1.733 Q = 280.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C					
.050	.2363	.3109	.0275	.3669	
.250	.0253				
.362	.0181				
.400					
.419					
.550					
.600					
.697					
.700					
.725					
.750					
.806					
.832					

DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES)

(082107)

AMES 87-710 1A12C O1 T1 S1 UPPER WING PRESSURE

MACH (1) = 3.499 ALPHA (2) = -5.720

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.850
.900
.951
.966
-0.0460
-0.0216
-0.0747
-0.0235

MACH (1) = 3.499 ALPHA (3) = -3.730 PTO = 2312.778 PO = 30.222 R/FT = 1.733 Q = 260.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.050
.250
.362
.400
.419
.550
.600
.697
.700
.723
.750
.806
.832
.850
.900
.931
.966
.1975
.0067
.0013
-0.0387
-0.0619
-0.0674
-0.0853
-0.0610
-0.0581
-0.0376
-0.0699
-0.0381
-0.0062
.3926
.0168
-0.0210
-0.0215
-0.0925
-0.0588
-0.0793
-0.0925

MACH (1) = 3.499 ALPHA (4) = -1.740 PTO = 2312.778 PO = 30.222 R/FT = 1.733 Q = 260.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.050
.250
.362
.400
.419
.550
.600
.697
.700
.723
.750
.806
.832
.850
.900
.931
.966
.1682
.2058
-0.0055
-0.0225
-0.0251
-0.0526
-0.0686
-0.0692
.0101
-0.0222

DATE 05 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

(.82107)

AVES 87-710 (A12C ON T1 S1 UPPER WING PRESSURE

WACH (1) = 3.499 ALPHA (A) = -1.740

SECTION (1) UPPER WING DEPENDENT VARIABLE CP

X/B .2990 .4270 .5340 .6750 .7900 .8870

X/C

.700 -.0667
 .725 -.0583
 .750 -.0714
 .806 -.0691
 .832 -.0528
 .850 -.0851
 .900 -.0725
 .921 -.0851
 .946 -.0596
 .969 -.0114

WACH (1) = 3.499 ALPHA (S) = .270 P/Q = 2312.778 P/Q = 30.222 P/RT = 1.753 Q = 260.222

SECTION (1) UPPER WING DEPENDENT VARIABLE CP

X/B .2990 .4270 .5340 .6750 .7900 .8870

X/C

.700 .1394
 .725 .2079
 .750 .3265
 .806 -.0227
 .832 -.0158
 .850 -.0271
 .900 -.0639
 .921 -.0795
 .946 -.0743
 .969 .0047
 .990 -.0817
 .997 -.0863
 .999 -.0829
 .999 -.0727
 .999 -.0785
 .999 -.055
 .999 -.0868
 .999 -.0786
 .999 -.0650
 .999 -.0661
 .999 -.0255



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.499 ALPHA (6) = 2.240 PTO = 2312.778 PO = 30.222 R/FT = 1.733 Q = 280.222
 AYES 87-710 1A12C Q1 T1 S1 UPPER WING PRESSURE (UP2107)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090		.1159	.1972		.2898	
.250		-.0285		-.0303		
.362	-.0372					
.400			-.0346			
.419		-.0898				
.550		-.0812	-.0797			
.600					-.0049	
.697	-.0703					
.700			-.0884			
.725			-.0634		-.0759	
.750						
.806		-.0634				
.832	-.0747		-.0804			
.850		-.0829			-.0690	
.900						
.951		-.0799				
.966	-.0301					

MACH (1) = 3.499 ALPHA (7) = 4.260 PTO = 2312.778 PO = 30.222 R/FT = 1.733 Q = 280.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090		.0912	.1818		.2787	
.250		-.0380		-.0419		
.362	-.0483					
.400			-.0373			
.419		-.0750				
.550		-.0821	-.0855			
.600					-.0093	
.697	-.0750					
.700			-.0915			
.725			-.0664		.0746	
.750						
.806		-.0892				
.832	-.0827		-.0915			
.850					-.0731	
.900		-.0882				
.951		-.0832				
.966	-.0341					

DATE 09 DEC 74
TABULATED SOURCE DATA - AIRCRAFT PRESSURES)

NAME: A2-210 VAPOR METER PRESSURE

(UB 107)

$$= 400 \quad \text{Aluma (A)} = 6317 \quad \text{BO} = 2312.770 \quad \text{OFT} = 1.733 \quad = 200,222$$

DEPARTMENT OF AGRICULTURE

[illegible]
$$= 200.222$$

SECRETARY OF THE ARMY

[illegible]

DATE 03 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

AVES 87-710 (A12C ON T1 S5 UPPER WING PRESSURE) (UBZIC9) (16 APR 74)

REFERENCE DATA
 SREF = 2890.0000 SQ.FT. WREF = 953.0000 IN.
 LREF = 1326.0000 IN. WREF = .0000 IN.
 BREF = 1326.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA
 BETA = .000 POWER = 1.000
 CDR = 28.860 SPWR = .766
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.002 ALPHA (1) = -7.910 PTO = 2295.556 PO = 62.000 R/FT = 2.310 0 = 392.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C	.090	.2734	.3611	.0554	.3986	
.290	.0210					
.382	.0458					
.400						
.419						
.590						
.600						
.697						
.700						
.725						
.750						
.806						
.832						
.890						
.900						
.951						
.966						

MACH (1) = 3.002 ALPHA (2) = -5.900 PTO = 2295.556 PO = 62.000 R/FT = 2.310 0 = 392.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C	.090	.2391	.3225	.3547		
.290						
.382						
.400						
.419						
.590						
.600						
.697						
.700						
.725						
.750						
.806						
.832						

AMES 87-710 1A12C ON T1 S3 UPPER WING PRESSURE (LB/2109)

MACH (1) = 3.002 ALPHA (4) = -1.910

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.700					
.725					
.750					
.808					
.832					
.890					
.900					
.951					
.966					

MACH (1) = 3.002 ALPHA (5) = .110 PTO = 2295.556 PO = 62.000 R/PY = 2.510 Q = 562.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090					
.230					
.362					
.400					
.419					
.550					
.600					
.697					
.700					
.725					
.750					
.808					
.832					
.890					
.900					
.951					
.966					



DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(UB 2109)

ANES 07-710 1A12C ON T1 S3 UPPER WING PRESSURE

MACH (1) = 3.002 ALPHA (6) = 2.050 P/Q = 2295.556 P/Q = 62.000 R/F/T = 2.310 Q = 392.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

1/2 .2990 .4270 .5340 .6750 .7800 .8870

X/C

.030	.1199	.1984	.2905
.290	-.0643	-.0377	
.362	-.0980	-.0759	
.400			
.419	-.0949	-.1130	
.500	-.1159	-.1130	-.0443
.600			
.697	-.0870	-.1280	
.700			
.729	-.1019		
.750		-.1055	
.806	-.1047		
.832	-.0747	-.1231	
.880			-.0980
.900	-.1112		
.921	-.0798		
.946	-.0897		

MACH (1) = 3.002 ALPHA (7) = 4.110 P/Q = 2295.596 P/Q = 62.000 R/F/T = 2.310 Q = 392.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

1/2 .2990 .4270 .5340 .6750 .7800 .8870

X/C

.030	.1008	.1841	.2805
.290	-.0884	-.0469	
.362	-.0884	-.0790	
.400			
.419	-.1031	-.1162	
.500	-.1205	-.1162	-.0530
.600			
.697	-.0948	-.1288	
.700			
.729	-.1046		
.750		-.1104	
.806	-.1181		
.832	-.0885	-.1270	
.880			-.1058
.900	-.1183		
.921	-.1013		
.946	-.0384		



MACH (1) = 3.002 ALPHA (8) = 5.090 PPO = 2295.556 P0 = 62.000 P/FT = 2.310 Q = 592.776
 ANES 07-710 1A12C ON T1 S3 UPPER WING PRESSURE (LB/2109)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .1133 .1627 .2446
 .290 .0661 -.0559
 .362 -.0699
 .400 -.0808
 .419 -.1060
 .550 -.1235 -.1164
 .600 -.1055
 .697 -.0978
 .700
 .725 -.1272
 .750 -.1070
 .808 -.1128
 .832 -.1253
 .850 -.1250
 .900 -.1203
 .931 -.1217
 .966 -.1075
 -.0400

MACH (1) = 3.002 ALPHA (9) = 6.110 PPO = 2295.556 P0 = 62.000 P/FT = 2.310 Q = 592.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .0999 .1447 .2186
 .290 -.0710 -.0669
 .362 -.0724
 .400 -.0851
 .419 -.1114
 .550 -.1241 -.1216
 .600 -.0606
 .697 -.1080
 .700
 .725 -.1261
 .750 -.1066
 .808 -.1156
 .832 -.1259
 .850 -.1063
 .900 -.1261
 .931 -.1227
 .966 -.1119
 -.0456

DATE 03 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-710 1A12C 01 T1 S3 UPPER WING PRESSURE (UBZ11P) (16 APR 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1378.0000 IN. YREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CTR = 23.860 SWPR = .828
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.499 ALPHA (1) = -7.760 PTO = 2308.556 PO = 30.000 R/FT = 1.764 Q = 259.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.050			.2841	.3598		.4080
.250			.0446		.0667	
.362	.0425			.0146		
.400						
.419		-.0114				
.550			-.0593	-.0398		.0433
.600						
.697	-.0131					
.700			-.0644			
.725		-.0497			-.0378	
.750						
.806		-.0355				
.832	-.0093			-.0699		
.850			-.0508		-.0284	
.900		-.0006				
.951						
.966	.0961					

MACH (1) = 3.499 ALPHA (2) = -5.760 PTO = 2308.556 PO = 30.000 R/FT = 1.764 Q = 259.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.050			.2351	.3165		.3736
.250			.0238		.0280	
.362	.0233			-.0025		
.400						
.419		-.0237				
.550			-.0494	-.0511		.0296
.600						
.697	-.0237			-.0725		
.700			-.0550			
.725						
.750						
.806		-.0439			-.0501	
.832	-.0199					



AMES 87-710 1A12C OF TI SJ UPPER WING PRESSURE (UBZ112)

MACH (1) = 3.499 ALPHA (2) = -5.760

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.850	-.0725				
.900	-.0588				-.0398
.951	-.0216				
.966	.0277				

MACH (1) = 3.499 ALPHA (3) = -3.770 PTO = 2308.556 PO = 30.000 R/FT = 1.764 Q = 259.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.1965	.2697			.3928
.250	.0094			.0159	
.262	.0030				
.400		-.0156			
.419	-.0372				
.550		-.0590	-.0623		
.600					.0212
.697	-.0383				
.700			-.0803		
.725		-.0569			-.0569
.750					
.806	-.0557				
.822	-.0367				
.850		-.0759			
.900		-.0656			-.0505
.951	-.0345				
.966	.0052				

MACH (1) = 3.499 ALPHA (4) = -1.750 PTO = 2308.556 PO = 30.000 R/FT = 1.764 Q = 259.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.1684	.2032			.3613
.250		-.0052			-.0206
.362	-.0101				
.400			-.0228		
.419	-.0489				
.550		-.0685	-.0675		
.600					.0142
.657	-.0489				

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB 2112)

AVES 87-710 1A12C 01 T1 S3 UPPER WING PRESSURE

MACH (1) = 3.499 ALPHA (4) = -1.750

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.700					
.725					
.750					
.806					
.832					
.850					
.900					
.951					
.966					

MACH (1) = 3.499 ALPHA (5) = .250 PTD = 2308.556 PO = 30.000 R/F/T = 1.764 Q = 259.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.350					
.250					
.362					
.400					
.419					
.550					
.600					
.697					
.700					
.725					
.806					
.832					
.850					
.900					
.951					
.966					



DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 231

MACH (1) = 3.499 ALPHA (6) = 2.250 PTD = 2308.556 PO = 30.000 R/PT = 1.764 Q = 259.778
 (UBZ112)

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7800	.8870
X/C						
.050			.1175	.1975		.2861
.250			-.0255		-.0284	
.362		-.0380				
.400				-.0311		
.419		-.0675				
.550			-.0800	-.0801		
.600						-.0017
.697		-.0680				
.700				-.0905		
.725			-.0632		-.0763	
.750						
.806		-.0644				
.832		-.0707		-.0911		
.850			-.0807			-.0666
.900						
.951		-.0768				
.966		-.0293				

MACH (1) = 3.499 ALPHA (7) = 4.240 PTD = 2308.556 PO = 30.000 R/PT = 1.764 Q = 259.778

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7800	.8870
X/C						
.050			.0975	.1828		.2836
.250			-.0339		-.0394	
.362		-.0474				
.400				-.0367		
.419		-.0752				
.550			-.0850	-.0840		
.600						-.0058
.697		-.0763				
.700				-.0917		
.725			-.0644		-.0802	
.750						
.806		-.0683				
.832		-.0796		-.0917		
.850			-.0862			-.0700
.900						
.951		-.0856				
.966		-.0387				

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AVES 87-710 1A12C 04 T1 S3 UPPER WING PRESSURE (UBZ112)

MACH (1) = 3.499 ALPHA (8) = 0.220 PTO = 2308.556 PO = 30.000 R/FT = 1.764 0 = 259.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050	.1126	.1659	.2372
.250	-.0309	-.0469	
.362	-.0560		
.400		-.0414	
.419	-.0822	-.0672	
.550	-.0828		-.0164
.600			
.697	-.0627		
.700		-.0927	
.725	-.0670		-.0796
.750			
.806	-.0942		
.832	-.0860	-.0938	
.850			-.0764
.900	-.0905		
.951	-.0920		
.966	-.0407		

MACH (1) = 3.499 ALPHA (9) = 0.250 PTO = 2308.556 PO = 30.000 R/FT = 1.764 0 = 259.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050	.0966	.1407	.2153
.250	-.0337	-.0577	
.362	-.0570		
.400		-.0467	
.419	-.0878	-.0644	
.550	-.0816		-.0234
.600			
.697	-.0849		
.700		-.0883	
.725	-.0666		-.0790
.750			
.806	-.0986		
.832	-.0887	-.0888	
.850			-.0747
.900	-.0899		
.951	-.0898		
.966	-.0597		

DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-710 1A12C 01 T1 S2 UPPER WING PRESSURE (UBZ114) (10 APR 74)

REFERENCE DATA

SPCF = 8890.0000 0.1 FT. XMPF = 953.0000 IN.
 LPSF = 1328.0000 IN. YMPF = .0000 IN.
 PPSF = 1328.0000 IN. ZMPF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.002 ALPHA (1) = -7.900 PTO = 2297.444 PO = 62.000 R/FT = 2.325 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.0500 .2792 .3571 .4030
 .2500 .0215 .0639
 .362 .0446
 .400 .0233
 .419 .0203
 .550 .0560 .0579
 .600 .0018
 .697 .0152
 .700 .0781
 .725 .0730
 .750 .0600
 .806 .0188
 .832 .0168
 .850 .0781
 .900 .0231
 .951 .0309
 .966 .0508
 .0680

MACH (1) = 3.002 ALPHA (2) = -5.890 PTO = 2297.444 PO = 62.000 R/FT = 2.325 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.0500 .2393 .2910 .3966
 .2500 .0026 .0470
 .362 .0180
 .400 .0388
 .419 .0394
 .550 .0700 .0741
 .600 .0115
 .697 .0314
 .700 .0917
 .725 .0863
 .750 .0683
 .806 .0386
 .832 .0022

DATE OF DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LBZ114)

MACH (1) = 3.002 ALPHA (2) = -5.890

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.890
.900
.951
.966
X/C
-0.0903
-0.0499
0.0032
0.0428
-0.0834

MACH (1) = 3.002 ALPHA (3) = -3.890 PTO = 2297.444 PO = 62.000 R/FT = 2.325 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090
.290
.362
.400
.419
.550
.600
.697
.700
.725
.750
.806
.832
.850
.900
.951
.966
X/C
.2035
-0.0203
-0.0052
-0.0560
-0.0830
-0.0802
-0.0477
-0.0925
-0.0585
-0.0228
-0.0174
0.0230
.2537
0.0073
-0.0449
-0.0802
-0.0213
-0.1015
-0.0824
-0.1026
-0.0673
-0.0174
0.0230
-0.0731

MACH (1) = 3.002 ALPHA (4) = -1.890 PTO = 2297.444 PO = 62.000 R/FT = 2.325 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090
.290
.362
.400
.419
.550
.600
.697
X/C
.1791
-0.0365
-0.0228
-0.0689
-0.0932
-0.0498
-0.0249



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-710 1A12C 01 T1 S2 UPPER WING PRESSURE (082114)

MACH (1) = 3.002 ALPHA (4) = -1.890

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.700 -.1065
 .725 -.0989
 .750 -.0878
 .806 -.0747
 .832 -.0437
 .850 -.1072
 .850 -.0652
 .900 -.0799
 .951 -.0350
 .966 .0043

MACH (1) = 3.002 ALPHA (5) = .100 PTO = 2297.444 PO = 62.000 R/PT = 2.323 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .1564 .2237 .3132
 .250 -.0480 -.0171
 .362 -.0393
 .400 -.0600
 .419 -.0801
 .550 -.1028 -.0982
 .600 -.0345
 .697 -.0725
 .700 -.1141
 .725 -.1088
 .750 -.0924
 .806 -.0867
 .832 -.0573
 .850 -.1115
 .900 -.0982
 .951 -.0541
 .966 -.0108



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

WACH (1) = 3.002 ALPHA (6) = 2.090 PTO = 2297.444 PO = 62.000 R/P7 = 2.325 Q = 393.000
(UB2114)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6750	.7800	.8870
X/C						
.090			.1358	.8027		.2961
.290			-.0549		-.0290	
.362	-.0280			-.0872		
.400						
.419		-.0908				
.550			-.1122	-.1033		
.600						-.0396
.697	-.0612					
.700				-.1160		
.725			-.1099		-.1007	
.750						
.808		-.1008				
.832	-.0883			-.1155		
.850			-.1076			-.0982
.900		-.0783				
.951						
.966	-.0202					

WACH (1) = 3.002 ALPHA (7) = 4.110 PTO = 2297.444 PO = 62.000 R/P7 = 2.325 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6750	.7800	.8870
X/C						
.090			.1265	.1657		.2655
.290			-.0566		-.0377	
.362	-.0803			-.0748		
.400						
.419		-.0874				
.550			-.1161	-.1087		
.600						-.0454
.697	-.0677					
.700				-.1231		
.725			-.1123		-.1033	
.750						
.808		-.1125				
.832	-.0772			-.1202		-.0998
.850						
.900			-.1162			
.951		-.0874				
.966	-.0264					

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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(UBZ114)

AINES 87-710 1A12C ON T1 S2 UPPER WING PRESSURE

MACH (1) = 3.002 ALPHA (8) = 6.120 PTO = 2297.444 PO = 62.000 R/FT = 2.325 Q = 393.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8970

X/C

.090	.1118	.1639	.2429
.230	-.0628	-.0539	
.362	-.0635		
.400		-.0773	
.419	-.1031		
.550	-.1172	-.1119	
.600			-.0515
.697	-.0923		
.700		-.1213	
.723	-.1126		
.750		-.1076	
.808	-.1183		
.832	-.0656	-.1187	
.850		-.1173	-.1037
.900	-.1173		
.951	-.1182		
.966	-.0346		

MACH (1) = 3.002 ALPHA (9) = 6.120 PTO = 2297.444 PO = 62.000 R/FT = 2.325 Q = 393.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8970

X/C

.090	.0923	.1466	.2152
.230	-.0707	-.0640	
.362	-.0721		
.400		-.0802	
.419	-.1093		
.550	-.1212	-.1146	
.600			-.0590
.697	-.1010		
.700		-.1231	
.723	-.1101		
.750		-.1148	
.808	-.1251		
.832	-.1071	-.1231	
.850		-.1167	-.1102
.900	-.1201		
.951			
.966	-.0494		

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURES

AVES 87-710 1A12C ON T1 S2 UPPER WING PRESSURE (UBZ117) (16 APR 74)

REFERENCE DATA

SREF = 2000.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1326.0000 IN. YREF = .0000 IN.
 BREF = 1326.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CPR = 26.860 STAFR = .766
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.002 ALPHA (1) = -7.920 PTO = 2294.667 PO = 62.000 R/FT = 2.253 Q = 392.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .2816 .3612 .4044
 .250 .0219 .0624
 .362 .0449
 .400 .0243
 .419 .0213
 .550 -.0554 -.0624
 .600
 .697 -.0166
 .700
 .725 -.0674
 .750
 .806 -.0227
 .852 .0151
 .900
 .951 -.0262
 .999 .0291
 .0065

MACH (1) = 3.002 ALPHA (2) = -5.930 PTO = 2294.667 PO = 62.000 R/FT = 2.253 Q = 392.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .2417 .2904 .3978
 .250 .0021 .0460
 .362 .0177
 .400
 .419
 .550
 .600
 .697 -.0337
 .700
 .725
 .750
 .806
 .852 -.0361
 .0048



DATE 03 DEC 74

TABULATED SOURCE DATA - (A12C WING PRESSURES)

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AVES 67-P10 (A12C ON T1 S2 UPPER WING PRESSURE (LB/IN²))

MACH (1) = 3.002 ALPHA (2) = -5.930

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7800 .8870

X/C

.890
.500
.931
.966
.0415
.0026
-1.0519
-1.0642

MACH (1) = 3.002 ALPHA (3) = -3.940 PTO = 2294.667 PO = 62.000 R/FY = 2.253 Q = 392.669

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7800 .8870

X/C

.090
.290
.362
.400
.419
.550
.600
.697
.700
.725
.750
.822
.850
.900
.951
.966
.2531
-1.0197
-1.0045
-1.0490
-1.0650
-1.0656
-1.0471
-1.0804
-1.0572
-1.0840
-1.050
-1.0819
-1.1032
-1.0725
-1.0175
-1.0206
-1.0715

MACH (1) = 3.002 ALPHA (4) = -1.930 PTO = 2294.667 PO = 62.000 R/FY = 2.253 Q = 392.669

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7800 .8870

X/C

.090
.290
.362
.400
.419
.540
.600
.697
.700
.725
.750
.822
.850
.900
.951
.966
.1768
-1.0342
-1.0236
-1.0711
-1.0975
-1.0933
-1.0275
-1.0409
-1.0409

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(082117)

AMES 87-710 1A12C 01 T1 S2 UPPER WING PRESSURE

WACH (1) = 3.002 ALPHA (4) = -1.930

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7400 .8870

X/C

.700 -.1103
 .725 -.0907
 .750 -.0918
 .808 -.0782
 .832 -.0436
 .850 -.1099
 .900 -.0864
 .931 -.0384
 .966 .0032

-.0829

WACH (1) = 3.002 ALPHA (5) = .090 STC = 2294.867 PC = 62.000 T/FT = 2.253 Q = 392.669

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7400 .8870

X/C

.590 .1554 .2214 .3148
 .290 -.0469 -.0177
 .362 -.0369
 .400 -.0836
 .419 -.0798
 .550 -.1044 -.1041
 .670 -.0345
 .697 -.0733
 .700 -.1201
 .725 -.0966
 .750 -.0951
 .808 -.0461
 .832 -.0592
 .850 -.1159
 .900 -.0987
 .931 -.0576
 .966 -.0545
 -.0103

WACH (1) = 3.002 ALPHA (6) = 2.070 PTO = 2294.667 PO = 62.000 R/PY = 2.253 Q = 392.669
 AWES 87-710 (A12C Q1 T1 S2 UPPER WING PRESSURE) (UB2117)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/C	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090			.1340	.2019		.2973
.230			-.0537		-.0325	
.362	-.0533					
.400				-.0715		
.419		-.0950				
.590			-.1085	-.1075		
.600						.0427
.697	-.0844					
.700				-.1236		
.725			-.0953			
.750					-.1090	
.756		-.1020				
.832	-.0708			-.1184		
.850			-.1085			-.0979
.900		-.0749				
.951						
.966	-.0194					

WACH (1) = 3.002 ALPHA (7) = 4.070 PTO = 2294.667 PO = 62.000 R/PY = 2.253 Q = 392.669

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/C	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090			.1237	.1653		.2681
.230			-.0616		-.0397	
.362	-.0586					
.400				-.0759		
.419		-.1013				
.590			-.1146	-.1126		
.600						-.0444
.697	-.0686					
.700			-.1219			
.725			-.0981			
.750					-.1090	
.756		-.1175				
.832	-.0800			-.1209		
.850			-.1111			-.1036
.900		-.1016				
.951						
.966	-.0251					

DATE 09 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURES

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AVES 87-710 1A12C 01 T1 S2 UPPER WING PRESSURE (UBZ11P)

MACH (1) = 3.002 ALPHA (8) = 6.060 PTO = 2294.667 PO = 62.000 R/FT = 2.253 Q = 392.869

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7800	.8870
X/C						
.050			.1094	.1619		.2457
.250			-.0645		-.0610	
.362	-.0634					
.400				-.0801		
.419						
.550		-.1053				
.600			-.1194	-.1166		
.697						-.0545
.700	-.0941					
.725			-.1000	-.1209		
.750					-.1133	
.806				-.1219		
.832	-.0901					
.850				-.1203		
.900			-.1126			-.1082
.951		-.1114				
.966	-.0502					

MACH (1) = 3.002 ALPHA (9) = 8.060 PTO = 2294.667 PO = 62.000 R/FT = 2.253 Q = 392.869

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7800	.8870
X/C						
.050			.0918	.1433		.2160
.250			-.0735		-.0671	
.362	-.0702					
.400				-.0855		
.419						
.550		-.1110				
.600			-.1295	-.1198		
.697	-.1034					-.0607
.700				-.1281		
.725			-.1050			
.750					-.1165	
.806				-.1260		
.832	-.1074					
.850				-.1274		
.900			-.1223			-.1098
.951		-.1201				
.966	-.0511					



DATE 03 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 243

AMES 87-710 1A12C 01 T1 S2 UPPER WING PRESSURE (UB2118) (16 APR 74)

REFERENCE DATA

STEF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
 LREF = 1328.0000 IN. YMRP = .0000 IN.
 BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.499 ALPHA (1) = -7.760 PTO = 2303.000 PO = 30.000 R/PT = 1.760 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .2676 .3581 .4202
 .250 .0460 .0606
 .362 .0482 .0207
 .400 .0207
 .419 -.0038 -.0307 .0511
 .550 -.0339
 .600
 .697 -.0038
 .700
 .725 -.0339
 .750 -.0342
 .806 -.0268
 .832 .0072
 .850
 .900 -.0439
 .951 .0083
 .966 .0570

MACH (1) = 3.499 ALPHA (2) = -5.770 PTO = 2303.000 PO = 30.000 R/PT = 1.760 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .2316 .3089 .4202
 .250 .0258 .0459
 .362 .0225
 .400 .0226
 .419 -.0218
 .550 -.0442 -.0471 .0369
 .600
 .697 -.0218
 .700
 .725 -.0570
 .750 -.0684
 .806
 .832 -.0393
 .964 -.0164



DATE 05 DEC 74
 TABULATED SOURCE DATA - 1A12C WING PRESSURES
 AVES 87-710 1A12C 01 T1 S2 UPPER WING PRESSURE (LBZ118)

MACH (1) = 3.499 ALPHA (2) = -5.770
 SECTION (1) ORBITER WING
 DEPENDENT VARIABLE CP
 Y/B .2990 .4270 .5340 .6730 .7800 .8870
 X/C
 .390
 .900
 .951
 .966
 .0280
 -.0147
 -.0526
 -.0701
 -.0385
 MACH (1) = 3.499 ALPHA (3) = -3.750 PTO = 2303.000 PO = 30.000 R/FT = 1.760 Q = 259.000

SECTION (1) ORBITER WING
 DEPENDENT VARIABLE CP
 Y/B .2990 .4270 .5340 .6730 .7800 .8870
 X/C
 .090
 .290
 .362
 .400
 .419
 .590
 .600
 .697
 .700
 .725
 .750
 .876
 .832
 .850
 .900
 .951
 .966
 .0110
 -.0333
 -.049
 -.0278
 -.0674
 -.0284
 .1965
 .0077
 .0059
 -.0333
 -.0599
 -.0385
 -.0750
 -.0706
 -.0478
 .0163
 .3852
 .0271
 -.0526
 MACH (1) = 3.499 ALPHA (4) = -1.770 PTO = 2303.000 PO = 30.000 R/FT = 1.760 Q = 259.000

SECTION (1) ORBITER WING
 DEPENDENT VARIABLE CP
 Y/B .2990 .4270 .5340 .6730 .7800 .8870
 X/C
 .050
 .250
 .362
 .400
 .419
 .590
 .600
 .697
 .700
 .725
 .750
 .876
 .832
 .850
 .900
 .951
 .966
 .0110
 -.0333
 -.049
 -.0278
 -.0674
 -.0284
 .1739
 .0033
 .0093
 -.0093
 -.0437
 -.0651
 -.0592
 .0226
 -.0432
 .2491
 .0097
 -.0116
 .3548



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(UBZ18)

AVES 87-710 1A12C 01 T1 S2 UPPER WING PRESSURE

MACH (1) = 3.499 ALPHA (4) = -1.770

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.700						
.725						
.750						
.806						
.832						
.850						
.900						
.951						
.966						

= 253.000

0

= 1.760

R/T

= 30.000

PO

= 2503.000

PTD

= .280

PTD

= .280

PTD

= .280

PTD

= .280

MACH (1) = 3.499 ALPHA (5) = .280 PTD = 2503.000 PO = 30.000 R/T = 1.760 0 = 253.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050						
.250						
.362						
.400						
.419						
.550						
.600						
.697						
.700						
.725						
.750						
.806						
.832						
.850						
.900						
.951						
.966						



AWES 87-710 1A12C O1 T1 S2 UPPER WING PRESSURE (UB2118)

MACH (1) = 3.499 ALPHA (6) = 2.250 PTO = 2303.000 PO = 30.000 R/PT = 1.760 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050	.1319	.1946			.3021
.250	-.0180		-.0225		
.362	-.0366				
.400		-.0302			
.419	-.0634				
.550	-.0782	-.0787			
.600					.0074
.697	-.0823				
.700		-.0903			
.725	-.0799		-.0717		
.750					
.806	-.0782				
.832	-.0829		-.0876		
.850		-.0876		-.0609	
.900					
.951	-.0743				
.966	-.0295				

MACH (1) = 3.499 ALPHA (7) = 4.240 PTO = 2303.000 PO = 30.000 R/PT = 1.760 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050	.1280	.1911			.2734
.250	-.0186		-.0373		
.362	-.0536				
.400		-.0341			
.419	-.0711				
.550	-.0749	-.0789			
.600					-.0032
.697	-.0705				
.700		-.0936			
.725	-.0778		-.0800		
.750					
.806	-.0716				
.832		-.0947			
.850					-.0708
.900	-.0871				
.951	-.0669				
.966	-.0366				



DATE 03 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURES)

PAGE 247

MACH (1) = 3.499 ALPHA (8) = 6.250 PTO = 2303.000 PO = 30.000 R/PT = 1.760 Q = 259.000
 ANS 87-710 1A12C Q1 T1 S2 UPPER WING PRESSURE (LBZ118)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.030	.1128	.1644	.2440
.250	-.0273	-.0433	
.382	-.0552		
.400		-.0324	
.419	-.0755		
.550	-.0815	-.0794	
.600			-.0058
.697	-.0749		
.700		-.0914	
.725	-.0821		
.750		-.0789	
.806	-.0919		
.832	-.0785	-.0936	
.850			
.900	-.0882		-.0703
.951	-.0902		
.966	-.0383		

MACH (1) = 3.499 ALPHA (9) = 8.190 PTO = 2303.000 PO = 30.000 R/PT = 1.760 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.030	.1121	.1540	.2290
.250	-.0246	-.0483	
.382	-.0558		
.400		-.0422	
.419	-.0776		
.550	-.0826	-.0865	
.600			-.0123
.697	-.0782		
.700		-.0996	
.725	-.0832		
.750		-.0827	
.806	-.0875		
.832	-.0809		
.850		-.0975	
.900	-.0942		-.0724
.951	-.0869		
.966	-.0485		

AVES 87-710 A12C O1 T1 S2 UPPER WING PRESSURE

(092121) (16 APR 74)

REFERENCE DATA

SREF = 2890.0000 SJ.FT. XMRP = 953.0000 IN.
 LREF = 1328.0000 IN. YMRP = .0000 IN.
 BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 RPR = 23.860 SMPR = .826
 GMEAL = 1.000 PLODER = .000

MACH (1) = 3.499 ALPHA (1) = -7.800 PTO = 2304.300 PO = 30.100 R/FT = 1.746 Q = 259.300

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.2653	.3556		.4180
.250			.0444		.0639	
.362	.0450					
.400				.0184		
.419		-.0063				
.530			-.0341	-.0348		
.600						.0463
.697	-.0085					
.700				-.0637		
.725			-.0403			
.750					-.0370	
.806		-.0281				
.832	.0019					
.850			-.0670			
.900			-.0452			-.0282
.951		.0051				
.966	.0342					

MACH (1) = 3.499 ALPHA (2) = -5.790 PTO = 2304.300 PO = 30.100 R/FT = 1.746 Q = 259.300

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.2295	.3055		.4192
.250			.0257		.0444	
.362	.0282					
.400				-.0026		
.419		-.0219				
.530			-.0478	-.0501		
.600						.0346
.697	-.0203					
.700				-.0707		
.725			-.0496			
.750						-.0431
.806		-.0385				
.832	-.0136					



DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-710 1A12C ON T1 S2 UPPER WING PRESSURE (082121)

MACH (1) = 3.499 ALPHA (2) = -3.790

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.850
.900
.951
.966
X/C
.850
.900
.951
.966
X/C
.850
.900
.951
.966

MACH (1) = 3.499 ALPHA (3) = -3.790 PTO = 2304.300 PO = 30.100 R/F7 = 1.746 Q = 259.300

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.050
.250
.362
.400
.419
.550
.600
.897
.700
.725
.750
.806
.832
.850
.900
.951
.966
X/C
.050
.250
.362
.400
.419
.550
.600
.897
.700
.725
.750
.806
.832
.850
.900
.951
.966
X/C
.050
.250
.362
.400
.419
.550
.600
.897
.700
.725
.750
.806
.832
.850
.900
.951
.966

MACH (1) = 3.499 ALPHA (4) = -1.810 PTO = 2304.300 PO = 30.100 R/F7 = 1.746 Q = 259.300

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.050
.250
.362
.400
.419
.550
.600
X/C
.050
.250
.362
.400
.419
.550
.600
X/C
.050
.250
.362
.400
.419
.550
.600

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 250

(UBZ121)

MACH (1) = 3.499 ALPHA (4) = -1.810

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7600 .8870

X/C

.700						
.725						
.750						
.808						
.832						
.850						
.900						
.951						
.966						

MACH (1) = 3.499 ALPHA (5) = .220 PTO = 2304.300 PO = 30.100 PFT = 1.746 Q = 259.300

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7600 .8870

X/C

.090						
.250						
.382						
.400						
.419						
.590						
.600						
.697						
.700						
.725						
.750						
.808						
.832						
.850						
.900						
.951						
.966						

DATE 06 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 251

(UBZ121)

AHS 27-710 1A12C 01 T1 S2 UPPER WING PRESSURE

WACH (1) = 3.498 ALPHA (0) = 2.190 PTO = 2304.300 PO = 30.100 R/PT = 1.746 Q = 259.300

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6730 .7600 .8870

X/C

.090	.1314	.1973		.3082
.250	-.0167		-.0201	
.362	-.0319			
.400		-.0293		
.419	-.0478			
.550	-.0746	-.0749		
.600			.0084	
.697	-.0588			
.700		-.0793		
.725	-.0840			
.750			-.0585	
.806	-.0704			
.832	-.0816			
.850		-.0735		
.900	-.0743		-.0547	
.951	-.0578			
.966	.0890			

WACH (1) = 3.499 ALPHA (7) = 4.220 PTO = 2304.300 PO = 30.100 R/PT = 1.746 Q = 259.300

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6730 .7600 .8870

X/C

.090	.1213	.1696		.2790
.250	-.0227		-.0343	
.362	-.0450			
.400		-.0294		
.419	-.0603			
.550	-.0745	-.0773		
.600			-.0023	
.697	-.0712			
.700		-.0623		
.725	-.0550			
.750			-.0692	
.806	-.0621			
.832	-.0734			
.850		-.0623		
.900	-.0752		-.0622	
.951	-.0723			
.966	.0117			



DATE 06 DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

(UB2121)

AMES 87-710 AIRCRAFT T1 S2 UPPER WING PRESSURE

MACH (1) = 3.496 ALPHA (8) = 6.240 PTO = 2304.300 PO = 30.100 R/P/T = 1.746 Q = 259.300

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6750 .7600 .8670

X/C

.080 .1121 .1636 .2466
 .250 -.0268 -.0476
 .362 -.0406
 .400 -.0333
 .419
 .550 -.0721 -.0737 -.0749
 .600
 .697 -.0759
 .700
 .725 -.0762
 .750 -.0530
 .806 -.0710
 .832 -.0681
 .850 -.0746
 .852 -.0821
 .900 -.0771
 .951 -.0748
 .966 -.0852
 .966 -.0827

MACH (1) = 3.496 ALPHA (9) = 6.220 PTO = 2314.300 PO = 30.100 R/P/T = 1.746 Q = 259.300

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6750 .7600 .8670

X/C

.080 .1086 .1535 .2245
 .250 -.0263 -.0226
 .362 -.0229
 .400 -.0393
 .419
 .550 -.0763 -.0743 -.0744
 .600
 .697 -.0796
 .700
 .725 -.0592 -.0605
 .750 -.0723
 .806 -.0613
 .832 -.0636
 .850 -.0632
 .900 -.0799
 .951 -.0792
 .966 -.0665
 .966 -.0361



AMES 87-710 1A12C ON T1 UPPER WING PRESSURE (UBZ122) (16 APR 74)

REFERENCE DATA

SHOF = 2690.0000 SQ.FT. WARP = 953.0000 IN.
 LREF = 1328.0000 IN. WRP = .0000 IN.
 BREF = 1328.0000 IN. ZWRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 CUMCAL = 1.000 PUCKETP = .000

MACH (1) = 3.499 ALPHA (1) = -7.750 PTO = 2302.667 PO = 30.000 R/PT = 1.610 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .3453 .4122 .4719
 .250 .5672 .0981
 .362 .0480
 .400 .0320
 .419 -.0072
 .500 -.0245 -.0237 .0573
 .600
 .697 -.0099
 .700
 .723 -.0608
 .750
 .706 -.0296
 .832 -.0044
 .850 -.0554
 .900 -.0401
 .951 .0034
 .966 .0833
 .0157

MACH (1) = 3.499 ALPHA (2) = -5.740 PTO = 2302.667 PO = 30.000 R/PT = 1.610 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .2979 .3669 .4361
 .250 .0464 .0561
 .362 .0279
 .400 .0135
 .419 -.0191
 .500 -.0361 -.0369
 .600
 .697 -.0219
 .700
 .723 -.0576
 .750 -.0857
 .706 -.0346
 .832 -.0410
 .850
 .900
 .951
 .966
 .0417
 .0346
 .0410
 .0146

DATE 15 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 07-710 1A12C 01 T1 UPPER WING PRESSURE (LB/2122)

MACH (1) = 3.499 ALPHA (2) = -3.740

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.890
.900
.931
.966
X/C
-0.0632
-0.0472
-0.0213
-0.0362
-0.0315

MACH (1) = 3.499 ALPHA (3) = -3.740 PTO = 2302.667 PO = 30.000 R/FT = 1.810 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.080
.290
.362
.400
.419
.550
.600
.697
.700
.725
.750
.806
.832
.890
.900
.951
.966
X/C
.2565
.3229
.0257
.0436
.0026
-0.0501
-0.0470
-0.0471
-0.0679
-0.0712
-0.0428
-0.0486
-0.0728
-0.0814
-0.0361
-0.0386
-0.0308

MACH (1) = 3.499 ALPHA (4) = -1.750 PTO = 2302.667 PO = 30.000 R/FT = 1.810 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090
.290
.362
.406
.419
.590
.600
.697
X/C
.217
.2469
.0104
-0.0080
-0.0094
-0.0393
-0.0579
-0.0575
-0.0232



DATE 03 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURES)

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AMES HP-710 1A12C 3/11 UPPER WING PRESSURE (LB/122)

MACH (1) = 3.499 ALPHA (4) = -1.75C

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6790 .7800 .8870

X/C

.700					
.725					
.750					
.775					
.800					
.825					
.850					
.875					
.900					
.925					
.950					
.975					
1.000					
1.025					
1.050					
1.075					
1.100					
1.125					
1.150					
1.175					
1.200					
1.225					
1.250					
1.275					
1.300					
1.325					
1.350					
1.375					
1.400					
1.425					
1.450					
1.475					
1.500					
1.525					
1.550					
1.575					
1.600					
1.625					
1.650					
1.675					
1.700					
1.725					
1.750					
1.775					
1.800					
1.825					
1.850					
1.875					
1.900					
1.925					
1.950					
1.975					
2.000					
2.025					
2.050					
2.075					
2.100					
2.125					
2.150					
2.175					
2.200					
2.225					
2.250					
2.275					
2.300					
2.325					
2.350					
2.375					
2.400					
2.425					
2.450					
2.475					
2.500					
2.525					
2.550					
2.575					
2.600					
2.625					
2.650					
2.675					
2.700					
2.725					
2.750					
2.775					
2.800					
2.825					
2.850					
2.875					
2.900					
2.925					
2.950					
2.975					
3.000					
3.025					
3.050					
3.075					
3.100					
3.125					
3.150					
3.175					
3.200					
3.225					
3.250					
3.275					
3.300					
3.325					
3.350					
3.375					
3.400					
3.425					
3.450					
3.475					
3.500					
3.525					
3.550					
3.575					
3.600					
3.625					
3.650					
3.675					
3.700					
3.725					
3.750					
3.775					
3.800					
3.825					
3.850					
3.875					
3.900					
3.925					
3.950					
3.975					
4.000					
4.025					
4.050					
4.075					
4.100					
4.125					
4.150					
4.175					
4.200					
4.225					
4.250					
4.275					
4.300					
4.325					
4.350					
4.375					
4.400					
4.425					
4.450					
4.475					
4.500					
4.525					
4.550					
4.575					
4.600					
4.625					
4.650					
4.675					
4.700					
4.725					
4.750					
4.775					
4.800					
4.825					
4.850					
4.875					
4.900					
4.925					
4.950					
4.975					
5.000					
5.025					
5.050					
5.075					
5.100					
5.125					
5.150					
5.175					
5.200					
5.225					
5.250					
5.275					
5.300					
5.325					
5.350					
5.375					
5.400					
5.425					
5.450					
5.475					
5.500					
5.525					
5.550					
5.575					
5.600					
5.625					
5.650					
5.675					
5.700					
5.725					
5.750					
5.775					
5.800					
5.825					
5.850					
5.875					
5.900					
5.925					
5.950					
5.975					
6.000					
6.025					
6.050					
6.075					
6.100					
6.125					
6.150					
6.175					
6.200					
6.225					
6.250					
6.275					
6.300					
6.325					
6.350					
6.375					
6.400					
6.425					
6.450					
6.475					
6.500					
6.525					
6.550					
6.575					
6.600					
6.625					
6.650					
6.675					
6.700					
6.725					
6.750					
6.775					
6.800					
6.825					
6.850					
6.875					
6.900					
6.925					
6.950					
6.975					
7.000					
7.025					
7.050					
7.075					
7.100					
7.125					
7.150					
7.175					
7.200					
7.225					
7.250					
7.275					
7.300					
7.325					
7.350					
7.375					
7.400					
7.425					
7.450					
7.475					
7.500					
7.525					
7.550					
7.575					
7.600					
7.625					
7.650					
7.675					
7.700					
7.725					
7.750					
7.775					
7.800					
7.825					
7.850					
7.875					
7.900					
7.925					
7.950					
7.975					
8.000					
8.025					
8.050					
8.075					
8.100					
8.125					
8.150					
8.175					
8.200					
8.225					
8.250					
8.275					
8.300					
8.325					
8.350					
8.375					
8.400					
8.425					
8.450					
8.475					
8.500					
8.525					
8.550					
8.575					
8.600					
8.625					
8.650					
8.675					
8.700					
8.725					
8.750					
8.775					
8.800					
8.825					
8.850					
8.875					
8.900					
8.925					
8.950					
8.975					
9.000					
9.025					
9.050					
9.075					
9.100					
9.125					
9.150					
9.175					
9.200					
9.225					
9.250					

DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

MACH (1) = 3.49 ALPHA (6) = 2.250 PTO = 2302.667 PO = 30.000 R/FT = 1.810 Q = 259.000
 AXES 87-710 1A12C OF T1 UPPER WING PRESSURE (LB/2122)

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .1821 .2193 .3088
 .250 -.0114 -.0159
 .362 -.0256 -.0208
 .400 .419 -.0628
 .550 -.0716 -.0684
 .600 .0075
 .697 -.0562
 .700 -.0485
 .725 -.0783
 .750 -.0679
 .806 -.0770
 .832 -.0575
 .850 -.0832
 .900 -.0816
 .951 -.0745
 .966 -.0576

MACH (1) = 3.499 ALPHA (7) = 4.250 PTO = 2302.667 PO = 30.000 R/FT = 1.810 Q = 259.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .1302 .1674 .2752
 .250 -.0229 -.0307
 .362 -.0393 -.0313
 .400 .419 -.0721
 .550 -.0771 -.0750
 .600 -.0093
 .697 -.0656
 .700 -.0681
 .725 -.0772
 .750 -.0745
 .806 -.0631
 .832 -.0694
 .850 -.0881
 .900 -.0859
 .951 -.0653
 .966 -.0359



DATE 05 DEC 74 TABULATED SOURCE DATA - (A120 WING PRESSURES)

MACH (1) = 3.499 ALPHA (8) = 6.220 PTO = 2302.667 PC = 30.000 R/PT = 1.610 Q = 259.000
 AVES 87-710 (A120 CM T1 UPPER WING PRESSURE (UB7122))

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.0927	.1586		.2459
.250			-.0327		-.0421	
.362	-.0420			-.0361		
.400						
.419		-.0754				
.550			-.0787	-.0788		
.600						-.0090
.697	-.0699					
.700				-.0887		
.725			-.0755		-.0794	
.750						
.806		-.0863				
.832	-.0770			-.0903		
.850			-.0870		-.0729	
.900		-.0874				
.951						
.966	-.0437					

MACH (1) = 3.499 ALPHA (9) = 6.240 PTO = 2302.667 PC = 30.000 R/PT = 1.610 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.030			.0817	.1297		.2154
.250			-.0360		-.0531	
.362	-.0469			-.0394		
.400						
.419		-.0781				
.550			-.0792	-.0826		
.600						-.0149
.697	-.0727					
.700			-.0941			
.725			-.0761		-.0805	
.750						
.806		-.0852				
.832	-.0809					
.850			-.0958			
.900		-.0876				-.0724
.951		-.0858				
.966	-.0525					

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-710 1A12C O1 T1 UPPER WING PRESSURE (UB2125) (16 APR 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 3.000
OPR = 23.860 G1MEAL = 1.000
RUDDER = .000

MACH (1) = 3.499 ALPHA (1) = -7.760 PTO = 2297.556 PO = 30.000 R/PT = 1.743 Q = 258.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .3432 .4122 .0995 .4729
.250 .0666
.362 .0446
.400 .0293
.419 -.0079
.590 -.0287 -.0269
.800 .0566
.697 -.0111
.700 -.0551
.725 -.0609
.750 -.0262
.836 -.0330
.832 -.0082
.850 -.0604
.900 -.0420
.921 .0034
.966 .0651

MACH (1) = 3.499 ALPHA (2) = -5.740 PTO = 2297.556 PO = 30.000 R/PT = 1.743 Q = 258.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2930 .4270 .5340 .6750 .7800 .8870

X/C

.050 .2933 .3652 .4358
.250 .0425 .0603
.362 .0249 .0143
.400
.419 -.0213
.590 -.0411 -.0385 .0422
.600
.697 -.0218
.700 -.0616
.725 -.0654
.750 -.0433
.804
.832 -.0207

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LBZ125)

AVES 87-710 1A12C Q1 T1 UPPER WING PRESSURE

MACH (1) = 3.499 ALPHA (4) = -1.770

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.700	-.0622
.725	-.0735
.750	-.0371
.806	-.0619
.832	-.0412
.890	-.0719
.900	-.0838
.951	-.0482
.966	-.0030
	-.0516

MACH (1) = 3.499 ALPHA (5) = .240 PTO = 2297.596 PO = 30.000 R/PT = 1.743 3 = 256.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.1874	.2498	.3219
.290	-.0029	-.0014	
.362	-.0199	-.0173	
.400	-.0555	-.0656	
.419	-.0687	-.0656	.0063
.500			
.600	-.0906	-.0853	
.697		-.0767	-.0634
.700			
.725			
.750	-.0693		
.806	-.0923	-.0648	
.832	-.0796	-.0602	
.890	-.0569		
.951			
.966	-.0177		

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

MACH (1) = 3.499 ALPHA (6) = 2.200 PTO = 2297.556 PO = 30.000 R/PT = 1.743 Q = 256.776
 (UB2125)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.1585	.2185	.3075
.250	-.0145	-.0164	
.362	-.0277		
.400		-.0240	
.419	-.0661		
.530		-.0759	
.600			.0054
.697	-.0589		
.700		-.0661	
.725		-.0788	
.735			-.0711
.806	-.0836		
.832	-.0995		
.850		-.0965	
.900		-.0826	-.0620
.951	-.0797		
.966	-.0244		

MACH (1) = 3.499 ALPHA (7) = 4.220 PTO = 2297.556 PO = 30.000 R/PT = 1.743 Q = 256.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.1311	.1614	.2750
.250	-.0242	-.0326	
.362	-.0366		
.400		-.0326	
.419	-.0703		
.530		-.0769	
.600			-.0031
.697	-.0632		
.700		-.0680	
.725	-.0795		
.750		-.0765	
.806	-.0846		
.832	-.0692		
.850		-.0902	
.900		-.0897	-.0684
.951	-.0852		
.966	-.0325		

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AINES 87-710 1A12C OF T1 UPPER WING PRESSURE (UBZ125)

MACH (1) = 3.499 ALPHA (8) = 8.200 PTO = 2297.556 PO = 30.000 R/PT = 1.743 Q = 256.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.080 .0961 .1563 .2475
 .290 .0304 -.0454
 .362 -.0403
 .400
 .419 -.0748
 .550 -.0775 -.0804
 .600
 .697 -.0899
 .700
 .725 -.0771
 .790
 .806 -.0852
 .832 -.0806
 .850
 .900 -.0892
 .951 -.0663
 .966 -.0419

-.0793

-.0723

MACH (1) = 3.499 ALPHA (9) = 8.170 PTO = 2297.556 PO = 30.000 R/PT = 1.743 Q = 256.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .0766 .1256 .2141
 .290 .0408 -.0456
 .362 -.0490
 .400
 .419 -.0630
 .550 -.0619 -.0697
 .600
 .697 -.0764
 .700
 .725 -.0610
 .790
 .806 -.0912
 .832 -.0874
 .850
 .900 -.0930
 .951 -.0834
 .966 -.0572

-.0181

-.0864

-.0783



DATE 05 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

AVES 87.710 A12C 08 T1 UPPER WING PRESSURE (UBZ128) (16 APR 74)

REFERENCE DATA

SWEP = 2090.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 3.000
 OPR = 23.860 GIMBAL = 1.000
 RUDDER = .000

WACH (1) = 3.499 ALPHA (1) = -7.750 PTO = 2307.444 PO = 30.000 R/PT = 1.762 Q = 259.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.2990	.4270	.5340	.6730	.7800	.8870
.090	.3423	.4079	.4695				
.250	.0650	.0993					
.362	.0453						
.400		.0287					
.419	-.0083						
.550	-.0315	-.0267					
.800			.0592				
.697	-.0123						
.700		-.0536					
.725	-.0651		-.0229				
.750							
.806	-.0310						
.832	-.0083		-.0385				
.850		-.0442		-.0192			
.900							
.951	.0036						
.966	.0037						

WACH (1) = 3.499 ALPHA (2) = -5.750 PTO = 2307.444 PO = 30.000 R/PT = 1.762 Q = 259.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.2990	.4270	.5340	.6730	.7800	.8870
.050	.2928	.3604	.4339				
.250	.0409	.0593					
.362	.0251						
.400		.0135					
.419	-.0166						
.550		-.0405	-.0395				
.800						.0428	
.697	-.0235						
.700		-.0609					
.725		-.0485					
.750						-.0346	
.806	-.0427						
.832	-.0219						

AVES 87-710 1A12C 08 71 UPPER WING PRESSURE (UB 2126)

$$\text{MACH} (1) = 3.499 \quad \text{ALPHA} (2) = -5.750$$

SECTION (1) ORBITER WING

y/6	.2990	.4270	.5340	.6170	.7000	.7870
-----	-------	-------	-------	-------	-------	-------

x/c	
.650	- .0665
.900	- .0532
.931	- .0256
.968	.0382
	- .0315

$$\begin{array}{rcl} \text{MACH (1)} & = & 3.499 \\ \text{ALPHA (3)} & = & -3.750 \\ \text{PTO} & = & 2307.444 \\ \text{PO} & = & 30.000 \\ \text{R/RY} & = & 1.762 \\ Q & = & 259.556 \end{array}$$

SECTION (1) QUATER WING

Y/0	.2990	.4270	.5340	.6730	.7200	.8870
-----	-------	-------	-------	-------	-------	-------

[illegible]
$$\begin{aligned} \text{WACH}(1) &= 3.419 & \text{ALPHA}(4) &= -1.780 & \text{PTO} &= 2307.444 & \text{PO} &= 30,000 & \text{R/FT} &= 1.762 & Q &= 259.556 \end{aligned}$$

SECTION (1) ORBITER WING

y/6	.2990	.4270	.5340	.6730	.7800	.8870
-----	-------	-------	-------	-------	-------	-------

χ^2	.090	.2132	.2826	.3589
	.290	.0037		.0154
	.342	-.0111		
	.400		-.0116	
	.419	-.0461		
	.930	-.0625	-.0626	
.600				.0196
.697	-.0433			

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TABULATED SOURCE DATA - 1A12C WING PRESSURES)

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WING (1) = 3.499 ALPHA (4) = -1.780 (UP 2126)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.700 -.0817
 .725 -.0746
 .750 -.0577
 .806 -.0641
 .832 -.0422
 .890 -.0855
 .900 -.0713
 .931 -.0468
 .966 -.0024

WING (1) = 3.499 ALPHA (5) = .230 PTD = 2507.444 PD = 30.000 R/PY = 1.762 Q = 259.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .1888 .2498 .3221
 .750 -.0053
 .862 -.0199
 .400 -.0195
 .419 -.0576
 .550 -.0665
 .600 -.0653
 .697 -.0516
 .700 -.0655
 .725 -.0775
 .750 -.0648
 .806 -.0716
 .832 -.0521
 .850 -.0639
 .900 -.0806
 .931 -.0575
 .966 -.0165

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-710 1A12C OB T1 UPPER WING PRESSURE (UB2126)
 MACH (1) = 3.499 ALPHA (6) = 2.180 PTO = 2307.444 PO = 30.000 R/P/T = 1.762 Q = 239.556

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .8990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .1602 .2178 .3068
 .290 -.0137 -.0191
 .362 -.0262
 .400 -.0246
 .419 -.0863
 .550 -.0756 -.0750 .0036
 .600
 .697 -.0567
 .700 -.0910
 .725 -.0774 -.0730
 .750
 .806 -.0943
 .832 -.0651
 .850 -.0663
 .900 -.0634 -.0650
 .951 -.0754
 .966 -.0244

MACH (1) = 3.499 ALPHA (7) = 4.180 PTO = 2307.444 PO = 30.000 R/P/T = 1.762 Q = 239.556

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .8990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .1337 .1620 .2766
 .290 -.0256 -.0332
 .362 -.0363
 .400 -.0336
 .419 -.0890
 .550 -.0763 -.0790 -.0018
 .600
 .697 -.0641
 .700 -.0904
 .725 -.0790 -.0763
 .750
 .806 -.0632
 .832 -.0696
 .850 -.0504 -.0666
 .900 -.0682
 .951 -.0938
 .966 -.0342



DATE 09 DEC 74

TABULATED SOURCE DATA - (A12C WING PRESSURES)

PAGE 807

MACH (1) = 3.499 ALPHA (8) = 6.210 PTD = 2307.444 PO = 30.000 R/PT = 1.762 Q = 259.556

AMES 67-710 (A12C CB T1 UPPER WING PRESSURE (UB2128))

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .9340 .6730 .7600 .6670

X/C

.050	.0942	.1329			.2466
.250	-.0343			-.0442	
.362	-.0402				
.400		-.0423			
.419	-.0762				
.550		-.0600	-.0845		
.600				-.0111	
.697	-.0724				
.700		-.0937			
.725	-.0779			-.0812	
.750					
.806	-.0685				
.832	-.0783		-.0937		
.850		-.0805		-.0737	
.900					
.931	-.0687				
.966	-.0446				

MACH (1) = 3.499 ALPHA (9) = 6.190 PTD = 2307.444 PO = 30.000 R/PT = 1.762 Q = 259.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .9340 .6730 .7600 .6670

X/C

.050	.0746	.1273			.2173
.250	-.0393			-.0552	
.362	-.0464				
.400		-.0443			
.419	-.0617				
.550		-.0690	-.0645		
.600				-.0162	
.697	-.0763				
.700		-.0965			
.725	-.0613			-.0662	
.750					
.806	-.0915				
.832	-.0671				
.850		-.0961			
.900	-.0927			-.0754	
.931	-.0636				
.966	-.0556				

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(UB2127) (16 APR 74)

ANES P7-P10 1A12C ON T1 UPPER WING PRESSURE

PARAMETRIC DATA

BETA = .000 POWER = 3.000
OPR = 25.000 GINBAL = 1.000
RUDDER = .000

REFERENCE DATA

BRDF = 2000.0000 SQ.FT. XREF = 953.0000 IN.
LREF = 1320.0000 IN. YREF = .0000 IN.
BRDF = 1320.0000 IN. ZREF = 400.0000 IN.
SCALE = .0190 SCALE

MACH (1) = 3.499 ALPHA (1) = -7.750 PTO = 2510.333 PO = 30.333 R/PY = 1.764 Q = 200.556

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .8990 .4270 .5340 .6730 .7500 .8670

X/C
.090 .3238 .3903 .4449
.290 .0269 .0699
.362 .0413 .0285
.400 .0115
.419 -.0322 -.0263 .0513
.590
.600
.697 -.0123
.700 -.0519
.725 -.0608
.750 -.0592
.832 -.0083
.850 -.0410
.900 .0026
.921
.946 .0809

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .8990 .4270 .5340 .6730 .7500 .8670

X/C
.090 .2608 .3462 .0996
.290 .0368
.362 .0242 .0100
.400 .0115
.419 -.0421 -.0401 .0364
.590
.600
.697 -.0238
.700 -.0611
.725 -.0665
.750 -.0374
.808 -.0432
.832 -.0812



DATE 05 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

AVES 87-710 (A12C ON T1 UPPER WING PRESSURE (052127)

MACH (1) = 3.499 ALPHA (2) = -5.760

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.090
.900
.991
.964
.0377
-0.0659
-0.0903
-0.0211
-0.0327

MACH (1) = 3.499 ALPHA (3) = -3.740 PTO = 2310.333 PO = 30.333 R/PT = 1.784 Q = 200.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.090
.2410
.0191
.362
.0049
-0.0330
-0.0515
-0.0489
-0.0688
-0.0339
-0.0722
-0.0689
-0.0475
-0.0536
-0.0341
-0.0245
-0.0824
-0.0452
-0.0374
-0.0141

MACH (1) = 3.499 ALPHA (4) = -1.800 PTO = 2310.333 PO = 30.333 R/PT = 1.784 Q = 200.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.090
.2155
.0093
.360
-0.0069
-0.0103
-0.0594
-0.0564
-0.0195
-0.0149

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TABULATED SOURCE (A - 1A12C WING PRESSURES)

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(0.97127)

UPPER WING PRESSURE

AVES 07-710 1A11C 04 T1

MACH (1) = 3.499 ALPHA (4) = -1.800

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.700 .725 .750 .806 .832 .850 .900 .951 .966

-.0776

-.0727

-.0510

-.0574

-.0373

-.0614

-.0669

-.0422

.0023

-.0479

MACH (1) = 3.499 ALPHA (5) = .210 PTO = 2316.333 PO = 30.333 R/T = 1.764 3 = 260.996

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .290 .362 .400 .419 .550 .600 .697 .700 .725 .750 .806 .832 .850 .900 .951 .966

.1862

-.0042

-.0145

-.0548

-.0157

-.0658

-.0621

.0103

-.0806

-.0757

-.0588

-.0696

-.0494

-.0795

-.0752

-.0562

-.0582

-.0139

DATE 09 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURES

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AMES 87-710 1A12C CA 11 UPPER WING PRESSURE (UB2127)

MACH (1) = 3.499 ALPHA (2) = 2.180 PTO = 2316.333 PO = 30.333 R/F1 = 1.764 Q = 260.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050	.1677	.2241			.3089
.250	-.0101		-.0135		
.362	-.0247				
.400		-.0227			
.419	-.0613				
.550		-.0728	-.0707		
.600				.0094	
.697	-.0569				
.700		-.0666			
.725		-.0762		-.0664	
.750	-.0777				
.806					
.832	-.0591				
.850		-.0850			
.900		-.0833		-.0605	
.951	-.0734				
.966	-.0196				

MACH (1) = 3.499 ALPHA (7) = 4.200 PTO = 2316.333 PO = 30.333 R/F1 = 1.764 Q = 260.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050	.1379	.1968			.2876
.250	-.0174		-.0273		
.362	-.0314				
.400		-.0283			
.419	-.0679				
.550		-.0756	-.0755		
.600				.0021	
.697	-.0603				
.700		-.0850			
.725	-.0741			-.0719	
.750					
.806	-.0674				
.832					
.850		-.0661			
.900	-.0639				-.0644
.951	-.0616				
.966	-.0296				

AVES 87-710 1A12C 04 T1 UPPER WING PRESSURE (LB/2127)

MACH (1) = 3.499 ALPHA (8) = 8.190 PTO = 2516.333 PO = 30.333 R/PT = 1.784 Q = 260.956

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7800	.8870
X/C						
.050			.1027	.1856		.2607
.250			-.0276		-.0410	
.362	-.0397					
.400				-.0361		
.419						
.550		-.0746				
.600			-.0773	-.0618		
.697	-.0691					-.0088
.700				-.0916		
.725			-.0774			
.750					-.0791	
.806				-.0655		
.832	-.0769					
.850				-.0938		
.900			-.0883			-.0716
.951			-.0855			
.966	-.0408					

MACH (1) = 3.499 ALPHA (9) = 8.210 PTO = 2516.333 PO = 30.333 R/PT = 1.784 Q = 260.956

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7800	.8870
X/C						
.050			.0855	.1407		.2299
.250			-.0332		-.0522	
.362	-.0444					
.400				-.0424		
.419						
.550		-.0785		-.0641		
.600			-.0613			-.0180
.697	-.0731					
.700				-.0960		
.725			-.0781			
.750					-.0841	
.806		-.0672				
.832	-.0672					
.850				-.0971		
.900			-.0911			-.0755
.951		-.0672				
.966	-.0925					

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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AWES 87-710 1A12C ON TI 51 MES.5 PLMS UP WING PRS (UBZ128) (18 APR 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 955.0000 IN.
 LREF = 1328.0000 IN. YMRP = .0000 IN.
 BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 GIVEAL = 1.000 RUDDER = .000

MACH (1) = 3.002 ALPHA (1) = -7.850 PTO = 2301.400 PO = 62.000 R/FT = 2.293 Q = 394.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .2732 .3657 .4043
 .250 .0240 .0555
 .362 .0434
 .400
 .419 -.0179
 .519 -.0208
 .550 -.0533 -.0567
 .600
 .697 -.0167
 .700
 .725
 .750
 .806
 .832
 .850
 .900
 .951
 .966
 .0202
 -.0804
 -.0283
 .0337
 .0666
 -.0632
 -.0543
 -.0025

MACH (1) = 3.002 ALPHA (2) = -5.680 PTO = 2301.400 PO = 62.000 R/FT = 2.293 Q = 394.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .2413 .3260 .3624
 .250 -.0004 .0343
 .362 .0150
 .400
 .419 -.0351
 .519 -.0702 -.0729
 .550
 .600
 .697 -.0321
 .700
 .725
 .750
 .806
 .832
 .0644
 -.0396
 -.0743
 -.0940
 -.0124
 -.0735

DATE 04 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

(LB2128)

AMES 87-710 1A12C O1 T1 S1 W3.5 PLMS UP WAG PRS

MACH (1) = 3.002 ALPHA (2) = -3.680

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.850
.900
.951
.966
.0424
-0.0937
-0.0487
-0.0611

MACH (1) = 3.002 ALPHA (3) = -3.680 PTO = 2301.400 PO = 62.000 R/PT = 2.293 Q = 594.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050
.250
.342
.400
.419
.550
.600
.697
.700
.725
.750
.806
.832
.850
.900
.951
.966
.0291
-0.0165
-0.0009
-0.0226
-0.0850
-0.0447
-0.0640
-0.0559
-0.0224
-0.0696
-0.0167
-0.0266
-0.0477
-0.0844
-0.1024
-0.0761
-0.1024
-0.1587
-0.173
-0.0234
-0.0175

MACH (1) = 3.002 ALPHA (4) = -1.627 PTO = 2301.400 PO = 62.000 R/PT = 2.293 Q = 594.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050
.250
.342
.400
.419
.550
.600
.697
.050
.1796
-0.0163
-0.0234
-0.0341
-0.0667
-0.0953
-0.0919
-0.0708
-0.0231
-0.0341
-0.0667
-0.0919
-0.0708

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 275

AMES 87-710 1A12C C1 T1 S1 M3.5 PLUG UP WING PRS (UB2128)

MACH (1) = 3.002 ALPHA (4) = -1.660

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.700					
.725					
.750					
.806					
.832					
.850					
.900					
.951					
.966					

MACH (1) = 3.002 ALPHA (5) = .120 PTO = 2301.400 PO = 62.000 R/PT = 2.293 Q = 394.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090					
.250					
.362					
.400					
.419					
.530					
.600					
.697					
.700					
.725					
.750					
.806					
.832					
.850					
.900					
.951					
.966					

DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.002 ALPHA (6) = 2.120 PTO = 2301.400 PO = 62.000 R/FT = 2.293 Q = 394.000
(UBZ129)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C	.090	.290	.490	.690	.890	1.090
.090	.1181	.2036	.2940			
.290	-.0612	-.0296				
.490	-.0525					
.690	-.0903	-.0703				
.890	-.1123	-.1077				
1.090			-.0398			
.090	-.0642					
.290		-.1210				
.490	-.0933					
.690		-.1023				
.890	-.0993					
1.090	-.0702	-.1167				
.090	-.1023		-.0930			
.290	-.0702					
.490						
.690						
.890						
1.090						

MACH (1) = 3.002 ALPHA (7) = 4.190 PTO = 2301.400 PO = 62.000 R/FT = 2.293 Q = 394.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C	.090	.290	.490	.690	.890	1.090
.090	.0982	.1882	.2747			
.290	-.0665	-.0400				
.490	-.0826					
.690	-.0950	-.0756				
.890	-.1109	-.1123				
1.090			-.0459			
.090	-.0803					
.290		-.1245				
.490	-.0965					
.690		-.1048				
.890	-.1115					
1.090			-.1213			
.090	-.0806					
.290		-.1105				
.490	-.0917		-.0998			
.690						
.890						
1.090						

DATE 05 DEC 74

TABULATED SOURCE DATA - (A12C QING PRESSURES)

PAGE 277

AMES 87-710 (A12C Q1 T1 S1 M3.5 PUS UP WING PRS) (UB2128)

MACH (1) = 3.002 ALPHA (8) = 6.120 TO = 2301.470 PO = 62.000 R/FT = 2.293 Q = 394.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090	.1125	.1681	.2476
.250	-.0661	-.0553	
.362	-.0661		
.400		-.0789	
.419	-.0985	-.1141	
.570	-.1202	-.1141	
.600			-.0505
.697	-.0949		
.700		-.1249	
.725	-.0968		-.1091
.750			
.806	-.1191		
.832	-.0881		
.850		-.1220	
.900	-.1112		-.1045
.951	-.1115		
.966	.0059		

MACH (1) = 3.002 ALPHA (9) = 6.140 PTO = 2301.400 PO = 62.000 R/FT = 2.235 Q = 394.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090	.0982	.1509	.2241
.250	-.0690	-.0662	
.362	-.0676		
.400		-.0617	
.419	-.1022	-.1170	
.50	-.1202	-.1170	
.600			-.0584
.697	-.1022		
.700		-.1238	
.725	-.0958		-.1102
.750			
.806	-.1202		
.832	-.1040		-.1224
.850		-.1087	-.1092
.900	-.1064		
.951			
.966	-.0076		

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(UBZ131) (16 APR 74)

AMES 87-710 1A12C 01 T1 S1 W3.5 PLMS UP WING PWS

PARAMETRIC DATA

BETA = .000 POWER = .000
CINHAL = 1.000 RUDDER = .000

REFERENCE DATA

REF = 1690.0000 SQ.FT. XREF = 999.0000 IN.
LREF = 1326.0000 IN. YREF = .0000 IN.
BREF = 1326.0000 IN. ZREF = 400.0000 IN.
SCALE = .0190 SCALE

MACH (1) = 3.499 ALPHA (1) = -7.730 PTO = 2296.667 PO = 30.000 R/FT = 1.746 Q = 256.222

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.090 2863 .3633 .4101
.290 .0476 .0601
.362 .0496 .0205
.400 .0205
.419 -.0062
.590 -.0374 -.0310 .0456
.600
.697 -.0066
.700 -.0590
.725 -.0437
.750
.806 -.0303
.832 -.0046
.890 -.0679
.900 -.0442
.951 -.0012
.966 .0563

MACH (1) = 3.499 ALPHA (2) = -5.730 PTO = 2296.667 PO = 30.000 R/FT = 1.746 Q = 256.222

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.090 .2422 .3196 .3700
.290 .0276 .0298
.362 .0245 .0007
.400 .0007
.419 -.0021
.590 -.0466 -.0497 .0302
.600
.697 -.0243
.700 -.0711
.725 -.0506
.750 -.0459
.806 -.0430
.832 -.0194



DATE 09 DEC 74

AFS 81-710 1A12C Q1 71 81 WE3.5 PLMS UP WAG PRS (UBZ131)

MACH (1) = 5.499 A'P-A (2) = -5.735

SECTION / 11081TER WING

	Y/A	.9900	.4270	.5340	.6750	.7800	.9870
1							
2							
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98							

0.90	-0.0733	-0.0378
0.90	-0.0546	
0.91	-0.0205	
0.96	0.0276	

$$= 250.222$$

SECTION / LOCATION / WING

[illegible][illegible]
$$\begin{aligned} \Delta \theta_{\text{A}} / \Delta &= 1.459 \quad \Delta \theta_{\text{A}} / \Delta = -1.740 \\ \text{PTD} &= 2298.667 \quad \text{PO} = 30.000 \quad \text{R/F} = 1.746 \quad \text{Q} = 258.222 \end{aligned}$$

SECTION (1) OF THE WING

Year	1990	1991	1992	1993	1994	1995
Value	1,390	1,420	1,530	1,670	1,780	1,880

[illegible]

AMES 87-710 1A12C CR T1 S1 W3.5 PL45 UP W46 PRS (UB7131)

MACH (1) = 3.499 ALPHA (4) = -1.745

SECTION 1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7810 .8870

X/C

.700					
.725					
.750					
.808					
.832					
.850					
.900					
.931					
.966					

MACH (1) = 3.499 ALPHA (5) = .020 PTD = 2236.667 PD = 30.000 P/T = 1.748 Q = 236.222

SECTION 1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7810 .8870

X/C

.080					
.750					
.802					
.800					
.419					
.570					
.800					
.637					
.700					
.725					
.750					
.806					
.832					
.850					
.900					
.931					
.966					

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C WING MEASUREMENTS

PAGE 241

AVES 87-710 1A12C ON Y1 S1 WES.5 PLMS UP WING PRS (UB2131)

MACH (1) = 3.459 ALPHA (6) = 2.260 PTC = 2296.667 PO = 30.000 R/FY = 1.746 Q = 258.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7500 .8870

X/C

.090	.1227	.2020		.2917	
.290	-.0205		-.0239		
.362	-.0336				
.400		-.0305			
.419					
.430	-.0649				
.600	-.0753	-.0766		.0012	
.697	-.0660				
.700		-.0664			
.725	-.0612		-.0722		
.750					
.806	-.0814				
.832	-.0693				
.850		-.0664			
.900	-.0798			-.0646	
.951	-.0759				
.966	-.0843				

MACH (1) = 3.459 ALPHA (7) = 4.220 PTC = 2296.667 PO = 30.000 R/FY = 1.746 Q = 258.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7500 .8870

X/C

.090	.0359	.1666		.2661	
.290	-.0253		-.0322		
.362	-.0413				
.400		-.0336			
.419	-.0693				
.430		-.0775	-.0766		
.600				-.0044	
.697	-.0710				
.700		-.0648			
.725		-.0601		-.0722	
.750					
.806	-.0630				
.832	-.0764				
.850		-.0634			
.900	-.0631			-.0674	
.951	-.0619				
.966	-.0331				

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

MAC (1) = 3.499 ALPHA (8) = 6.270 PTC = 2296.667 PO = 30.000 R/PT = 1.746 Q = 256.222 (LB/2131)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.8990	.4270	.5340	.6750	.7400	.8870
.090	.1196	.1890	.2461				
.290	-.0234	-.0396					
.362	-.0457						
.400		-.0338					
.419	-.0732						
.550	-.0770	-.0799					
.600							-.0082
.697	-.0757						
.700		-.0659					
.725		-.0807					-.0722
.750	-.0652						
.806							
.832	-.0770						
.850		-.0664					-.0396
.900	-.0637						
.931	-.0641						
.966	-.0346						

MAC (1) = 3.499 ALPHA (9) = 8.280 PTC = 2296.667 PO = 30.000 R/PT = 1.746 Q = 256.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.8990	.4270	.5340	.6750	.7400	.8870
.090	.1045	.1504	.2769				
.290	-.0298	-.0497					
.362	-.0474						
.400		-.0371					
.419	-.0770						
.550	-.0764	-.0777					
.600							-.0142
.697	-.0770						
.700		-.0810					
.725		-.0574					-.0700
.750							
.806	-.0669						
.832	-.0792						
.850		-.0808					-.0466
.900	-.0804						
.931	-.0796						
.966	-.0452						

DATE 03 DEC 74

TABULATED SOURCE DATA - (A120 WING P. ISSUES)

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AMES RESEARCH (A120 G1 M1 S1 LOWER WING PRESSURE) (L92031) (10 APR 74)

REFERENCE DATA

SREF = 2880.0000 SQ.FT. WREF = 993.0000 IN.
 LREF = 1326.0000 IN. WREF = .0000 IN.
 BREF = 1326.0000 IN. WREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

DELTA = .000 WPSA = .000
 POWER = .000 GMEAL = 1.000
 RUDDER = .000

MACH (1) = 2.459 ALPHA (1) = -7.84C PTO = 2314.000 PO = 136.000 R/PT = 3.927 Q = 593.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 -.0412 -.0239
 .400 -.0395
 .419 .0824
 .590 .0293
 .800 -.0684
 .700 -.0335
 .725 -.0364
 .806 -.0648
 .850 -.0840
 .900 -.1167
 .950 .0000

MACH (1) = 2.499 ALPHA (2) = -5.830 PTO = 2314.000 PO = 136.000 R/PT = 3.927 Q = 593.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 -.0328 -.0008
 .400 -.0293
 .419 .0622
 .590 .0202
 .800 -.0321
 .700 -.0550
 .725 -.0336
 .806 -.0717
 .850 -.0819
 .900 -.1065
 .950 .0000

AVES 37-710 1A12C 01 T1 S1 LOWER WING PRESSURE (L92031)

MACH (1) = 2.499 ALPHA (3) = -3.540 PTO = 2314.000 PO = 136.000 R/PT = 3.927 Q = 593.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0045 .0342
 .400 -.0149
 .419 .0426
 .550 .0409
 .600 -.0300
 .700 -.0305
 .725 -.0233
 .806 -.0711
 .850 -.0624
 .900 -.0917
 .950 .0000

MACH (1) = 2.499 ALPHA (4) = -1.880 PTO = 2314.000 PO = 136.000 R/PT = 3.927 Q = 593.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0390 .0699
 .400 .0102
 .419 -.0180
 .550 .0440
 .600 -.0063
 .700 -.0463
 .725 -.0086
 .806 -.0692
 .850 -.0726
 .900 -.0622
 .950 .0000

MACH (1) = 2.499 ALPHA (5) = .190 PTO = 2314.000 PO = 136.000 R/PT = 3.927 Q = 593.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0806 .1113
 .400 .0294
 .419 -.0161
 .550 .0339
 .600 .0196
 .700 -.0516
 .725 .0095

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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AMES 87-710 1A12C OF T1 S1 LOWER WING PRESSURE (LB2031)

MACH (1) = 2.499 ALPHA (5) = .190

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.808	-.0604		
.850		-.0823	
.900	-.0843		-.0733
.950		.0000	

MACH (1) = 2.499 ALPHA (6) = 2.180 PTO = 2314.000 PO = 136.000 R/FT = 3.927 Q = 593.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090		.1081	.1526
.400		.0458	
.419	-.0100		
.550		.0280	
.600			.0436
.700		-.0361	
.723	.0266		
.808	-.0500		
.890		-.0457	-.0579
.900	-.0792		
.950		.0000	

MACH (1) = 2.499 ALPHA (7) = 4.230 PTO = 2314.000 PO = 136.000 R/FT = 3.927 Q = 593.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090		.1323	.2044
.400		.0693	
.419	-.0008		
.550		.0186	
.600			.0820
.700		-.0047	
.723	.0468		
.808	-.0179		
.850		-.0381	
.900	-.0097		-.0313
.950		.0000	

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TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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MACH (1) = 2.498 ALPHA (8) = 6.230 PTD = 2314.000 PO = 136.000 R/PT = 3.927 Q = 593.111
 AWS 87-710 1A12C ON T1 S1 LOWER WING PRESSURE (L57031)

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8870

X/C

.050 .1730 .2561
 .400 .1012
 .419 .0377
 .550 .0712
 .600 .1232
 .700 .0579
 .725 .1136
 .806 .0226
 .850 -.0272
 .900 .0243
 .950 -.0071
 .0003

MACH (1) = 2.498 ALPHA (9) = 8.800 PTD = 2314.000 PO = 136.000 R/PT = 3.927 Q = 593.111

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8870

X/C

.050 .1946 .3222
 .400 .1309
 .419 .1074
 .550 .0758
 .600 .1651
 .700 .0762
 .725 .2135
 .806 .0404
 .850 .0634
 .900 .0359
 .950 .0246
 .0000

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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AVES 87-710 1A12C 01 T1 S1 LOWER WING PRESSURE

(LBX034) (16 APR 74)

REFERENCE DATA

SREF = 2490.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MP5RA = .000
 POWER = 1.000 CTR = 31.280
 SMPR = .916 GIMBAL = 1.000
 RUDDER = .000

MACH (1) = 2.499 ALPHA (1) = -7.880 PTO = 2312.333 PO = 135.887 R/PT = 2.405 Q = 592.596

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.050
 .400
 .419
 .550
 .600
 .700
 .725
 .808
 .850
 .900
 .950

-.0481
 -.0412
 .0432
 .0288
 -.0405
 -.0343
 -.0699
 -.0871
 -.0883
 -.1211
 .0000

-.0293
 -.0723

MACH (1) = 2.499 ALPHA (2) = -5.860

PTO = 2312.333 PO = 135.887 R/PT = 2.405 Q = 592.596

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.050
 .400
 .419
 .550
 .600
 .700
 .725
 .808
 .850
 .900
 .950

-.0368
 -.0289
 .0004
 .0239
 -.0428
 -.0592
 -.0747
 -.0887
 -.0851
 .0000

-.0072
 -.0579
 -.1196

DATE 08 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

(L.P. 2034)

WING (1) = 2.499 ALPHA (3) = -3.870 PTO = 2312.333 PO = 135.667 R/PT = 2.405 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C
 .030 .0026 .0277
 .400 .0070
 .419 -.0248
 .550 .0284
 .600 -.0348
 .700 -.0636
 .725 -.0166
 .808 -.0709
 .850 -.0887
 .900 -.1048
 .950 .0000

WING (1) = 2.499 ALPHA (4) = -1.880 PTO = 2312.333 PO = 135.667 R/PT = 2.405 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C
 .090 .0558 .0653
 .400 .0083
 .419 -.0234
 .550 .0086
 .600 -.0080
 .700 -.0723
 .725 -.0008
 .808 -.0881
 .850 -.0877
 .900 -.0905
 .950 .0000

WING (1) = 2.499 ALPHA (5) = .130 PTO = 2312.333 PO = 135.667 R/PT = 2.405 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C
 .090 .0851 .1080
 .400 .0253
 .419 -.0127
 .550 -.0184
 .600 .0202
 .700 -.0604
 .725 .0108



DATE 05 DEC 74

TABULATED SOURCE DATA - IA12C (WING PRESSURES)

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(LBZ034)

AMES 87-710 IA12C ON T1 S1 LOWER WING PRESSURE

MACH (1) = 2.499 ALPHA (5) = .130

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.808	-.05175		
.850		-.0832	
.900	-.0856		-.0789
.950		.0000	

MACH (1) = 2.499 ALPHA (6) = 2.120 PTO = 2312.333 PO = 135.867 R/PT = 2.405 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090		.1103	.1498
.400		.0417	
.419	-.0075		
.550		-.0228	
.600			.0436
.700		-.0587	
.725		.0257	
.806	-.0479		
.850		-.0662	
.900	-.0706		-.0611
.950		.0000	

MACH (1) = 2.499 ALPHA (7) = 4.110 PTO = 2312.333 PO = 135.867 R/PT = 2.405 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.390		.1330	.1968
.400		.0655	
.419	.0046		
.550		.0218	
.600			.0795
.700		-.0065	
.725		.0295	
.806	-.0084		
.850		-.0320	
.900	-.0056		-.0399
.950		.0000	

DATE 09 DEC 74 TABULATED SOURCE DATA - TA12C (WING PRESSURES)

MACH (1) = 2.499 ALPHA (8) = 6.150 PTO = 2312.333 PO = 135.867 R/PT = 2.405 Q = 592.556
 (LB/2034)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.4270	.5340	.6750	.8870
X/C				
.050			.1750	.2547
.400			.0985	
.419	.0468			
.550		.0879		.1207
.600			.0508	
.700		.0980		
.725				
.806	.0267		-.0351	
.850		.0266	-.0106	
.900			.0000	
.950				

MACH (1) = 2.499 ALPHA (9) = 6.170 PTO = 2312.333 PO = 135.867 R/PT = 2.405 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.4270	.5340	.6750	.8870
X/C				
.050			.1962	.3173
.400			.1317	
.419	.1039			
.550		.0704		.1631
.600			.0710	
.700		.2046		
.725	.0454			
.806			.0323	.0256
.850		.0337		
.900			.0000	
.950				



DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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AVES 87-710 1A12C OF TI SI LOWER WING PRESSURE (LB/2033) (16 APR 74)

REFERENCE DATA

$WREF = 2000.0000$ SQ.FT. $WREF = 953.0000$ IN.
 $LREF = 1328.0000$ IN. $YREF = .0000$ IN.
 $BREF = 1328.0000$ IN. $ZREF = 400.0000$ IN.
 $SCALE = .0190$ SCALE

PARAMETRIC DATA

$BETA = .000$ $MP3BA = .000$
 $POWER = 1.000$ $OPR = 14.720$
 $SMPPR = .429$ $GIMBAL = 1.000$
 $RUDDER = .000$

$MACH (1) = 2.499$ $ALPHA (1) = -7.660$ $PTO = 2192.000$ $PO = 128.667$ $R/PT = 2.974$ $Q = 562.000$

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8670

X/C

.050 -0.0505 -0.0307
 .400 -0.0452
 .419 .0641
 .550 .0271
 .600 -0.0756
 .700 -0.0424
 .725 -0.0366
 .808 -0.0705
 .850 -0.0924
 .900 -0.0946 -0.1235
 .950 .0000

$MACH (1) = 2.499$ $ALPHA (2) = -5.660$ $PTO = 2192.000$ $PO = 128.667$ $R/PT = 2.974$ $Q = 562.000$

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8670

X/C

.050 -0.0422 -0.0062
 .400 -0.0346
 .419 .0669
 .550 .0236
 .600 -0.0602
 .700 -0.0369
 .725 -0.0336
 .808 -0.0742
 .850 -0.0937
 .900 -0.0902 -0.1160
 .950 .0000

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AMES 87-710 1A12C OF TI SI LOWER WING PRESSURE (LB/2055)

MACH (1) = 2.499 ALPHA (3) = -3.690 PTO = 2192.000 PO = 128.667 R/PT = 2.974 Q = 562.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 .0090 .0280
 .400 -.0192
 .419 .0164
 .550 .0371
 .600 -.0403
 .700 -.0404
 .725 -.0253
 .808 -.0747
 .850 -.0692
 .900 -.1070
 .950 .0000

MACH (1) = 2.499 ALPHA (4) = -1.860 PTO = 2192.000 PO = 128.667 R/PT = 2.974 Q = 562.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 .0460 .0643
 .400 .0048
 .419 -.0221
 .550 .0360
 .600 -.0140
 .700 -.0606
 .725 -.0087
 .808 -.0716
 .850 -.0633
 .900 -.0909
 .950 -.0925
 .0000

MACH (1) = 2.499 ALPHA (5) = .160 PTO = 2192.000 PO = 128.667 R/PT = 2.974 Q = 562.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 .0749 .1052
 .400 .0214
 .419 -.0164
 .550 .0099
 .600 .0132
 .700 -.0645
 .725 .0076



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A1RC WING PRESSURES)

AMES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE (LB/OSI)

MACH (1) = 2.499 ALPHA (5) = .160

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .6670

X/C

.808 -.0808
.890 -.0744
.900 -.0808
.930 .0000

MACH (1) = 2.499 ALPHA (6) = 2.150 PTO = 2192.000 PO = 128.667 R/PT = 2.974 Q = 962.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .6670

X/C

.080 .0986 .1471
.400 .0364
.419 -.0124
.590 -.0053
.600 .0360
.700 .0451
.725 .0251
.808 -.0612
.850 -.0641
.900 -.0796
.930 .0720

MACH (1) = 2.499 ALPHA (7) = 4.160 PTO = 2192.000 PO = 128.667 R/PT = 2.974 Q = 962.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .6670

X/C

.090 .1236 .1977
.400 .0880
.419 .0005
.590 .0199
.600 .0745
.700 -.0114
.725 .0424
.808 -.0161
.850 -.0493
.900 -.0406
.930 .0000



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/IN²)

ANES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE

WACH (1) = 8.489 ALPHA (8) = 6.170 PTO = 2192.000 PO = 128.687 R/PT = 2.974 Q = 562.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.090 .1692 .2540
 .400 .0930
 .419 .0380
 .550 .0696 .1153
 .670 .0491
 .702 .1047
 .725 .0219
 .808 -.0368
 .850 -.0122
 .900 .0000
 .950

WACH (1) = 8.489 ALPHA (9) = 6.190 PTO = 2192.000 PO = 128.687 R/PT = 2.974 Q = 562.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.090 .1911 .3170
 .400 .1229
 .419 .0978
 .550 .0693 .1612
 .670 .0702
 .725 .2016
 .808 .0397
 .850 .0422
 .900 .0295 .0190
 .950 .0000

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A1SEC WING PRESSURES)

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ANES 87-710 1A1SEC OF T1 S1 LOWER WING PRESSURE (LB/OSF) (16 APR 74)

REFERENCE DATA

BREF = 2990.0000 SQ.FT. WREF = 953.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

SETA = .000 MP5RA = .000
 POLER = .000 GIMBAL = 1.000
 RUDDER = .000

MACH (1) = 2.499 ALPHA (1) = -7.660 PTO = 2510.667 PO = 135.667 R/PY = 3.930 Q = 992.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C

.080 -.0516 -.0502
 .400 -.0475
 .419 .0662
 .590 .0760
 .600 -.0444
 .700 -.0596
 .725 -.0710
 .808 -.0933
 .850 -.0976
 .900 -.1252
 .950 .0000

MACH (1) = 2.499 ALPHA (2) = -6.650 PTO = 2510.667 PO = 135.667 R/PY = 3.930 Q = 992.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C

.080 -.0434 -.0072
 .400 -.0374
 .419 .0766
 .590 .0236
 .600 -.0595
 .700 -.0391
 .725 -.0348
 .808 -.0734
 .850 -.0944
 .900 -.1070
 .950 -.1172
 .0000

DATE 08 DEC 74 REGULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-P10 1A12C ON T1 S1 LOWER WING PRESSURE (L57037)

MACH (1) = 2.499 ALPHA (5) = -2.610 PTO = 2510.667 PO = 135.667 R/PT = 3.930 Q = 592.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8670

X/C

.050 -.0052 .0267
 .400 -.0211
 .419 .0383
 .550 .0421
 .600 -.0391
 .700 -.0393
 .725 -.0240
 .806 -.0751
 .850 -.0904
 .900 -.1061
 .950 .0000

MACH (1) = 2.499 ALPHA (4) = -1.620 PTO = 2510.667 PO = 135.667 R/PT = 3.930 Q = 592.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8670

X/C

.050 .0453 .0640
 .400 .0024
 .419 -.0187
 .550 .0429
 .600 -.0151
 .700 -.0385
 .725 -.0112
 .806 -.0721
 .850 -.0617
 .900 -.0947
 .950 .0000

MACH (1) = 2.499 ALPHA (5) = .160 PTO = 2510.667 PO = 135.667 R/PT = 3.930 Q = 592.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8670

X/C

.090 .0715 .1048
 .400 .0197
 .419 -.0189
 .550 .0331
 .600 .0103
 .700 -.0614
 .725 .0043



DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURES)

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AMES 87-710 1A12C O1 T1 S1 LOWER WING PRESSURE (LB/OSI)

MACH (1) = 2.499 ALPHA (5) = .180

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.808 -.0849
 .850 -.0705
 .900 -.0961
 .950 .0000

MACH (1) = 2.499 ALPHA (6) = 2.150 PTO = 2310.667 PO = 135.667 R/PT = 3.930 Q = 592.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0980 .1480
 .400 .0365
 .419 -.0134
 .550 .0242
 .600 .0346
 .700 -.0455
 .725 .0211
 .806 -.0546
 .850 -.0567
 .900 -.0655
 .950 -.0664
 .0000

MACH (1) = 2.499 ALPHA (7) = 4.180 PTO = 2310.667 PO = 135.667 R/PT = 3.930 Q = 592.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .1215 .1977
 .400 .0615
 .419 -.0026
 .550 .0181
 .600 .0730
 .700 -.0141
 .725 .0409
 .806 -.0220
 .850 -.0463
 .900 -.0260
 .950 .0000

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 2.499 ALPHA (8) = 6.190 PTO = 2310.667 PO = 135.667 R/PT = 3.930 Q = 592.000
 ASES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE (LB/OSI)

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.050 .1655 .2554
 .400 .0935
 .419 .0338
 .550 .0710
 .600 .1161
 .700 .0494
 .725 .1043
 .808 .0208
 .850 -.0399
 .900 -.0127
 .950 .0000

MACH (1) = 2.499 ALPHA (9) = 7.190 PTO = 2310.667 PO = 135.667 R/PT = 3.930 Q = 592.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.050 .1798 .2845
 .400 .1091
 .419 .0766
 .550 .0756
 .600 .1417
 .700 .0812
 .725 .1566
 .808 .0279
 .850 -.0047
 .900 .0013
 .950 .0000



DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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AMES 87-710 1A12C OF TI SI LOWER WING PRESSURE (LB/2036) (16 APR 74)

REFERENCE DATA

$SREF = 2990.0000$ SQ.FT. $XREF = 993.0000$ IN.
 $LREF = 1328.0000$ IN. $YREF = .0000$ IN.
 $BREF = 1328.0000$ IN. $ZREF = 400.0000$ IN.
 $SCALE = .0190$ SCALE

PARAMETRIC DATA

$BETA = .000$ $WPSRA = .000$
 $POWER = .000$ $GIMBAL = 1.000$
 $RUDDER = .000$

$MACH (1) = 3.002$ $ALPHA (1) = -7.890$ $PTO = 2309.000$ $PO = 63.000$ $R/PT = 3.101$ $Q = 395.000$

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0136 .0541
 .400 -.0126
 .419 .0947
 .550 .0861
 .600
 .700 -.0146
 .725 .0124
 .808 -.0834
 .890 -.0961
 .900 -.0632
 .950 -.0634
 .0000

$MACH (1) = 3.002$ $ALPHA (2) = -8.900$ $PTO = 2309.000$ $PO = 63.000$ $R/PT = 3.101$ $Q = 395.000$

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0213 .0732
 .400 -.0024
 .419 .0447
 .550 .0583
 .600
 .700 -.0171
 .725 .0087
 .808 -.0391
 .890 -.0559
 .900 -.0616
 .950 .0000
 -.0592

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LBZ036)

AMES 87-710 1A12C 01 T1 S1 LOWER WING PRESSURE

MACH (1) = 3.002 ALPHA (3) = -3.880 PTO = 2309.000 PO = 63.000 R/PT = 3.101 Q = 395.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .0217 .1011
.400 .0163
.419 .0224
.550 .0366
.900 .0027
.700 -.0358
.725 .0145
.806 -.0383
.850 -.0577
.900 -.0776
.950 -.0537
.0000

MACH (1) = 3.002 ALPHA (4) = -1.880 PTO = 2309.000 PO = 63.000 R/PT = 3.101 Q = 395.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .0932 .1223
.400 .0235
.419 .0239
.550 .0375
.900 .0192
.700 -.0378
.725 .0124
.806 -.0340
.850 -.0802
.900 -.0771
.950 -.0455
.0000

MACH (1) = 3.002 ALPHA (5) = .140 PTO = 2309.000 PO = 63.000 R/PT = 3.101 Q = 395.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .0864 .1557
.400 .0368
.419 .0321
.550 .0262
.900 .0361
.700 -.0272
.725 .0185



DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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(LBX038)

MACH (1) = 3.002 ALPHA (5) = .140

AMES 87-710 1A12C O1 T1 S1 LOWER WING PRESSURE

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .6670

X/C

.808 -.0228
 .650 -.0566
 .900 -.0752
 .950 -.0336
 .0000

MACH (1) = 3.002 ALPHA (6) = 2.140 PTO = 2309.000 PO = 63.000 R/FT = 3.101 Q = 395.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .6670

X/C

.050 .0949 .2006
 .400 .0366
 .419 .0236
 .550 .0066
 .600 .0565
 .700 -.0204
 .725 .0267
 .808 -.0222
 .650 -.0826
 .900 -.0671
 .950 -.0225
 .0000

MACH (1) = 3.002 ALPHA (7) = 4.130 PTO = 2309.000 PO = 63.000 R/FT = 3.101 Q = 395.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .6670

X/C

.050 .1123 .2370
 .400 .0526
 .419 .0174
 .550 .0136
 .600 .0846
 .700 .0002
 .725 .0300
 .808 -.0185
 .650 -.0491
 .900 -.0624
 .950 -.0067
 .0000



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.002 ALPHA (8) = 6.150 PTO = 2309.000 PO = 63.000 R/FT = 3.101 Q = 395.000
 (LB/OSK)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.050 .1487 .2871
 .400 .0712
 .419 .0155
 .550 .0346
 .600 .1169
 .700 .0202
 .725 .0285
 .806 -.0100
 .850 -.0225
 .900 .0112
 .950 .0000

MACH (1) = 3.002 ALPHA (9) = 6.150 PTO = 2309.000 PO = 63.000 R/FT = 3.101 Q = 395.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.050 .1655 .3412
 .400 .0753
 .419 .0456
 .550 .0690
 .600 .1496
 .700 .0386
 .725 .0214
 .806 -.0032
 .850 .0041
 .900 -.0636
 .950 .0000



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-710 1A12C OF T1 S1 LOWER WING PRESSURE (LB2041) (16 APR 74)

REFERENCE DATA

SREF = 2990.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MPDA = .000
 POLAR = 1.000 CTR = 28.880
 STAMP = .768 GIMBAL = 1.000
 RUDDER = .000

MACH (1) = 3.002 ALPHA (1) = -7.890 PTO = 2278.556 PO = 61.667 R/PT = 1.952 Q = 389.667

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.080 .0159 .0517
 .400 -.0082
 .419 .0317
 .550 .0954
 .600 -.0207
 .700 -.0225
 .725 .0139
 .806 -.0356
 .850 -.0571
 .900 -.0644
 .950 .0000

MACH (1) = 3.002 ALPHA (2) = -5.920 PTO = 2278.556 PO = 61.667 R/PT = 1.952 Q = 389.667

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.080 .0806 .0733
 .400 .0097
 .419 .0257
 .550 .0942
 .600 -.0140
 .700 -.0343
 .725 .0238
 .806 -.0360
 .850 -.0609
 .900 -.0596
 .950 .0000

DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AVES 87-710 1A12C OI TI S1 LOWER WING PRESSURE (LBZ041)

MACH (1) = 3.002 ALPHA (3) = -3.900 PTO = 2276.556 PO = 61.667 R/PT = 1.952 Q = 369.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .6870

X/C

.090 .0256 .0969
.400 .0326
.419 .0230
.550 -.0039
.600 .0026
.700 -.0359
.725 -.0010
.808 -.0403
.850 -.0713
.900 -.0516
.950 .0000

MACH (1) = 3.002 ALPHA (4) = -1.920 PTO = 2276.556 PO = 61.667 R/PT = 1.952 Q = 369.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .6870

X/C

.090 .0964 .1192
.400 .0398
.419 .0242
.550 .0031
.600 .0220
.700 -.0346
.725 -.0116
.808 -.0342
.850 -.0667
.900 -.0411
.950 .0000

MACH (1) = 3.002 ALPHA (5) = .090 PTO = 2276.556 PO = 61.667 R/PT = 1.952 Q = 369.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .6870

X/C

.090 .0953 .1514
.400 .0640
.419 .0266
.550 .0102
.600 .0429
.700 -.0237
.725 -.0131



DATE 08 DEC 74

TABULATED SOURCE DATA - (A12C (WING PRESSURES))

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(LBZ041)

AVES 07-710 (A12C OF TI SI LOWER WING PRESSURE

MACH (1) = 3.002 ALPHA (5) = .090

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.808 -.0331
 .850 -.3812
 .900 -.0721
 .950 -.0259
 .0000

MACH (1) = 3.002 ALPHA (6) = 2.090 PTO = 2276.556 PO = 61.667 R/PT = 1.952 Q = 369.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090
 .400 .1017 .2011
 .419 .0685
 .590 .0206
 .600 .0073
 .700 .0644
 .725 -.0173
 .808 -.0087
 .850 -.0809
 .900 -.0169
 .950 -.0000

MACH (1) = 3.002 ALPHA (7) = 4.110 PTO = 2276.556 PO = 61.667 R/PT = 1.952 Q = 369.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090
 .400 .1194 .2355
 .419 .0805
 .590 .0217
 .600 .0136
 .700 .0012
 .725 -.0020
 .808 .0688
 .850 -.0014
 .900 -.0014
 .950 .0000

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

MACH (1) = 3.002 ALPHA (8) = 6.060 PTO = 2276.556 PO = 61.667 R/PT = 1.952 Q = 369.667
 4VES 67-710 1A12C 01 T1 S1 LOWER WING PRESSURE (L87041)

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8670

X/C

.090 .1446 .2621
 .400 .1028
 .419 .0190
 .550 .0377 .1163
 .800 .0225
 .725 .0064
 .806 -.0196
 .890 -.0241
 .900 -.0707 .0143
 .950 .0000

MACH (1) = 3.002 ALPHA (9) = 6.100 PTO = 2276.556 PO = 61.667 R/PT = 1.952 Q = 369.667

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8670

X/C

.090 .1616 .3365
 .400 .0662
 .419 .0419
 .550 .0756 .1466
 .800 .0761
 .725 .0123
 .806 -.0199
 .890 -.0074
 .900 -.0753 .0320
 .950 .0000

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 307

AWES 87-710 1A12C 01 T1 S1 LOWER WING PRESSURE (LB/2042) (16 APR 74)

REFERENCE DATA

$WREF = 2000.0000$ SQ.FT. $WREF = 953.0000$ IN.
 $LREF = 1328.0000$ IN. $YREF = .0000$ IN.
 $BREF = 1328.0000$ IN. $ZREF = 400.0000$ IN.
 $SCALE = .0190$ SCALE

PARAMETRIC DATA

$BETA = .000$ $MPRA = .000$
 $POWER = 1.000$ $OPR = 14.400$
 $SRPR = .412$ $GIMBAL = 1.000$
 $RUDDER = .000$

$MACH (1) = 3.002$ $ALPHA (1) = -8.190$ $PTO = 2170.333$ $PO = 59.000$ $RATY = 2.303$ $Q = 371.556$

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0136 .0520
 .400 -.0113
 .419 .0702
 .590 .0845
 .600 -.0212
 .700 -.0155
 .725 .0112
 .806 -.0259
 .850 -.0562
 .900 -.0734
 .950 -.0631
 .950 .0000

$MACH (1) = 3.002$ $ALPHA (2) = -5.690$ $PTO = 2170.333$ $PO = 59.000$ $RATY = 2.303$ $Q = 371.556$

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0201 .0743
 .400 .0017
 .419 .0264
 .590 .0475
 .600 -.0122
 .700 -.0197
 .725 .0031
 .806 -.0439
 .850 -.0576
 .900 -.0760
 .950 -.0604
 .950 .0000



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LBZ04E)

AMES 87-710 1A12C OF T1 SI LOWER WING PRESSURE

MACH (1) = 3.002 ALPHA (5) = -3.880 PTO = 2170.333 PO = 59.000 R/PT = 2.303 Q = 371.556

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8670

X/C
 .090 .0206 .0972
 .400 .0210
 .419 .0175
 .590 .0255
 .800 .0007
 .700 .0365
 .725 .0049
 .808 -.0469
 .890 -.0814
 .900 -.0755
 .950 -.0346
 .0000

MACH (1) = 3.002 ALPHA (4) = -1.870 PTO = 2170.333 PO = 59.000 R/PT = 2.303 Q = 371.556

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8670

X/C
 .090 .0923 .1177
 .400 .0303
 .419 .0502
 .590 .0060
 .800 .0175
 .700 -.0355
 .725 .0085
 .808 -.0394
 .890 -.0881
 .900 -.0715
 .950 -.0436
 .0000

MACH (1) = 3.002 ALPHA (5) = .110 PTO = 2170.333 PO = 59.000 R/PT = 2.303 Q = 371.556

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8670

X/C
 .090 .0445 .1509
 .400 .0475
 .419 .0280
 .590 .0054
 .800 .0356
 .700 -.0251
 .725 .0012

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LBZ042)

AVES 87-710 1A12C OL T1 S1 LOWER WING PRESSURE

MACH (1) = 3.002 ALPHA (5) = .110

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.808 -.0289
.850 -.0848
.900 -.0687
.950 -.0324
.990 .0000

MACH (1) = 3.002 ALPHA (6) = 2.100 PTO = 2170.333 PO = 59.000 R/PT = 2.305 Q = 371.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.050 .0946 .1981
.400 .0529
.419 .0773
.550 .0036
.600 .0982
.700 -.0167
.725 .0042
.808 -.0237
.850 -.0857
.900 -.0210
.950 -.0823
.990 .0000

MACH (1) = 3.002 ALPHA (7) = 4.120 PTO = 2170.333 PO = 59.000 R/PT = 2.305 Q = 371.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.090 .1129 .2539
.400 .0814
.419 .0139
.550 .0071
.600 .0451
.700 -.0024
.725 .0074
.808 -.0201
.850 -.0513
.900 -.0083
.950 .0000

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-710 1A12C OF T1 S1 LOWER WING PRESSURE (LB/2042)

MACH (1) = 3.002 ALPHA (8) = 6.120 PTD = 2170.333 PO = 59.000 R/PT = 2.303 Q = 371.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C

.090 .1408 .2640
.400 .0752
.419 .0053
.590 .0248
.800 .1139
.700 .0203
.725 .0076
.808 -.0161
.890 -.0229
.900 -.0815
.950 .0118
.0000

MACH (1) = 3.002 ALPHA (9) = 6.080 PTD = 2170.333 PO = 59.000 R/PT = 2.303 Q = 371.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C

.080 .1616 .3373
.400 .0747
.419 .0314
.590 .0750
.800 .1437
.700 .0766
.725 .0127
.808 -.0148
.890 -.0001
.900 -.0307
.950 .0000

DATE 05 DEC 74 TABULATED SOURCE DATA - (A12C RING PRESSURES)

AMES 87-710 A12C OF T1 S1 LOWER WING PRESSURE (LBZ045) (16 APR 74)

REFERENCE DATA

SREF = 2990.0000 SQ.FT. XMRP = 953.0000 IN.
 LREF = 1326.0000 IN. YMRP = .0000 IN.
 BREF = 1326.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MPRA = .000
 POWER = 1.000 QPR = 41.000
 SMPR = 1.150 GIMBAL = 1.000
 RUDDER = .000

MACH (1) = 3.002 ALPHA (1) = -7.940 PTD = 2439.200 PO = 66.000 R/FT = 1.761 Q = 417.600

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.050 .0185 .0517
 .400 .0033
 .419 .0337 .0483
 .550 .0483
 .600 .0192
 .700 .0273
 .725 .0206
 .806 -.0297
 .850 -.0548
 .900 -.0944
 .950 .0000

MACH (1) = 3.002 ALPHA (2) = -6.940 PTD = 2439.200 PO = 66.000 R/FT = 1.761 Q = 417.600

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.050 .0194 .0606
 .400 .0033
 .419 .0346 .0281
 .550 .0281
 .600 -.0146
 .700 -.0331
 .725 .0146
 .806 -.0306
 .850 -.0562
 .900 -.0644
 .950 .0000



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LBZ045)

AMES 87-710 1A12C O1 T1 S1 LOWER WING PRESSURE

MACH (1) = 3.002 ALPHA (3) = -5.900 PTO = 2439.200 PO = 66.000 R/PT = 1.761 Q = 417.600

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .6870

X/C

.090 .0206 .0757
 .400 .0148
 .419 .0301
 .550 .0077
 .600 -.0124
 .700 -.0390
 .725 .0090
 .806 -.0308
 .850 -.0660
 .900 -.0649
 .950 -.0593
 .0000

MACH (1) = 3.002 ALPHA (4) = -3.920 PTO = 2439.200 PO = 66.000 R/PT = 1.761 Q = 417.600

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .6870

X/C

.090 .0353 .1005
 .400 .0394
 .419 .0276
 .550 -.0009
 .600 .0079
 .700 -.0354
 .725 -.0097
 .806 -.0328
 .850 -.0700
 .900 -.0636
 .950 .0000
 -.0481

MACH (1) = 3.002 ALPHA (5) = -1.960 PTO = 2439.200 PO = 66.000 R/PT = 1.761 Q = 417.600

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .6870

X/C

.090 .1154 .1216
 .400 .0540
 .419 .0300
 .550 .0141
 .600 .0355
 .700 -.0305
 .725 -.0147

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/2045)

AVES 87-710 1A12C OL TL SL LOWER WING PRESSURE

MACH (1) = 3.002 ALPHA (5) = -1.960

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.806 -.0326
.850 -.0854
.900 -.0691
.950 .0000

MACH (1) = 3.002 ALPHA (6) = .070 PTO = 2439.200 PO = 66.000 R/PT = 1.761 Q = 417.600

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.050 .1176 .1557
.400 .0667
.419 .0365
.550 .0155
.600 .0332
.700 -.0185
.725 -.0093
.806 -.0348
.850 -.0541
.900 -.0721
.950 .0000

MACH (1) = 3.002 ALPHA (7) = 2.060 PTO = 2439.200 PO = 66.000 R/PT = 1.761 Q = 417.600

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .1115 .2001
.400 .0690
.419 .0369
.590 .0192
.600 .0702
.700 -.0156
.725 -.0033
.806 -.0532
.850 -.0719
.900 -.0124
.950 .0000

DATE 08 DEC 74 TABULATED SOURCE DATA - TA12C (WING PRESSURES)

AMES 67-710 TA12C ON T1 S1 LOWER WING PRESSURE (LB/2045)

MACH (1) = 3.002 ALPHA (8) = 4.070 PTO = 2439.200 PO = 66.000 P/PT = 1.761 Q = 417.600

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.090 .1272 .2585
.400 .0836
.419 .0357 .0913 .0990
.590 .0027
.600 .0088
.700 .0027
.725 .0088
.808 -.0247
.890 -.0291
.900 -.0607
.900 .0004
.990 .0000

MACH (1) = 3.002 ALPHA (9) = 6.080 PTO = 2439.200 PO = 66.000 P/PT = 1.761 Q = 417.600

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.090 .1928 .2830
.400 .1079
.419 .0306 .0888 .1250
.590 .0345
.600 .0142
.700 .0090
.725 -.0201
.808 -.0560
.890 .0173
.900 .0000
.990 .0000

MACH (1) = 3.002 ALPHA (10) = 8.090 PTO = 2439.200 PO = 66.000 P/PT = 1.761 Q = 417.600

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.090 .1684 .3413
.400 .1229
.419 .0845 .0935 .1482
.590 .0743
.600 .0163
.700 .0163
.990 .0163



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB2049)

AMES 87-710 1A12C 01 T1 S1 LOWER WING PRESSURE

MACH (1) = 3.002 ALPHA (10) = 8.050

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .6870

X/C

.806 .0197

.850

.900

.950

-.0054

-.0488

.0000

.0348



DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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AMES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE (LB/2046) (16 APR 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1326.0000 IN. YREF = .0000 IN.
 BREF = 1326.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MPSRA = .000
 POWER = .000 GIMBAL = 1.000
 RUDDER = .000

MACH (1) = 3.499 ALPHA (1) = -7.750 PTO = 2312.222 PO = 30.000 R/PT = 2.392 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.050		.0292	.0843
.400		.0025	
.419	.0467		
.550		.0400	
.600			.0101
.700		-.0052	
.725	.0921		
.806	-.0082		
.850		-.0336	-.0215
.900	-.0576		
.950		.0000	

MACH (1) = 3.499 ALPHA (2) = -5.750 PTO = 2312.222 PO = 30.000 R/PT = 2.392 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.050		.0401	.0969
.400		.0035	
.419	.0309		
.550		.0467	
.600			.0101
.700		-.0237	
.725	.0905		
.806	-.0073		
.850		-.0423	-.0221
.900	-.0566		
.950		.0000	

DATE 05 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

MACH (1) = 3.499 ALPHA (3) = -3.740 PTD = 2312.222 PO = 30.000 R/PT = 2.392 Q = 260.000
 (LB/2048)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .090 .0200 .1035
 .400 .0200
 .419 .0309 .0249 .0233
 .590 .0182
 .600 .0435
 .700 .0133
 .725 .0455
 .806 .0144
 .890 .0000
 .900
 .950

MACH (1) = 3.499 ALPHA (4) = -1.740 PTD = 2312.222 PO = 30.000 R/PT = 2.392 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .090 .0750 .1290
 .400 .0286
 .419 .0390 .0254 .0406
 .590 .0129
 .600 .0368
 .700 .0172
 .725 .0092
 .806 .0019
 .890 .0000
 .900
 .950

MACH (1) = 3.499 ALPHA (5) = .270 PTD = 2312.222 PO = 30.000 R/PT = 2.392 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .090 .0713 .1565
 .400 .0309
 .419 .0406 .0255 .0566
 .590 .0062
 .600 .0310
 .700
 .725

(LBZ048)

AMES 87-710 1A12C O1 T1 S1 LOWER WING PRESSURE

MACH (1) = 3.499 ALPHA (5) = .270

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.808	-.0024
.850	-.0461
.900	-.0803
.950	.0000
	.0047

MACH (1) = 3.499 ALPHA (6) = 2.270 PTO = 2512.222 PO = 30.000 R/FT = 2.592 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090	.1238	.2509
.400	.0370	
.419	.0303	
.550	.0261	
.600		.0661
.700	-.0116	
.725	.0266	
.808	-.0001	
.850	-.0477	
.900	-.0650	.0081
.950	.0000	

MACH (1) = 3.499 ALPHA (7) = 4.260 PTO = 2512.222 PO = 30.000 R/FT = 2.592 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090	.1415	.2616
.400	.0400	
.419	.0232	
.550	.0117	
.600		.0666
.700	-.0139	
.725	.0243	
.808	-.0046	
.850	-.0445	
.900	-.0606	.0199
.950	.0000	

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 319

MACH (1) = 3.499 ALPHA (9) = 6.280 PTO = 2312.222 PO = 30.000 R/PY = 2.392 Q = 280.000
 AWES 87-710 1A12C 01 T1 S1 LOWER WING PRESSURE (LB/IN²)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.090		.1383	.3069
.400		.0910	
.419	.0093		
.590		.0226	.1197
.600			
.700		-.0041	
.725		.0472	
.806	-.0086		
.850		-.0390	.0379
.900		-.0526	
.950		.0000	

MACH (1) = 3.499 ALPHA (9) = 6.280 PTO = 2312.222 PO = 30.000 R/PY = 2.392 Q = 280.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.090		.1320	.3610
.400		.0723	
.419	.0418		
.590		.0554	.1569
.600			
.700		.0169	
.725		.0391	
.806	-.0172		
.850		-.0082	.0647
.900		-.0635	
.950		.0070	

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A18C WING PRESSURES

(LBZ049) (16 APR 74)

AMES 87-710 1A12C 01 T1 S1 LOWER WING PRESSURE

PARAMETRIC DATA

BETA = .000 MPSPD = .000
POWER = 1.000 QPR = 13.170
SPWR = .456 GIMBAL = 1.000
RUDDER = .000

WACH (1) = 3.499 ALPHA (1) = -7.770 PTO = 2175.222 PO = 28.889 R/PT = 1.731 Q = 244.889

REFERENCE DATA

WREF = 2000.0000 SQ.FT. WREF = 953.0000 IN.
LREF = 1328.0000 IN. WREF = .0000 IN.
BREF = 1328.0000 IN. WREF = 400.0000 IN.
SCALE = .0190 SCALE

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.080 .0320 .0867
.400 .0072
.419 .0746 .0837
.550 .0111
.600
.700 -.0136
.725 .0825
.806 .0001
.850 -.0333
.900 -.0178
.950 .0000

WACH (1) = 3.499 ALPHA (2) = -5.750 PTO = 2175.222 PO = 28.889 R/PT = 1.731 Q = 244.889

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.080 .0420 .0975
.400 .0106
.419 .0466 .0354
.550 .0128
.600
.700 -.0190
.725 .0453
.806 -.0089
.850 -.0422
.900 -.0451
.950 .0000

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 321

MACH (1) = 3.499 ALPHA (3) = -3.750 PTD = 2175.222 PO = 28.889 R/PT = 1.731 Q = 244.889
(LB/FT²)

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B	.4270	.5340	.6730	.8870
X/C				
.050			.0227	.1013
.400			.0285	
.419		.0498		
.550		.0283		
.600				.0231
.700			-.0121	
.725		.0312		
.808	-.0082			
.850		-.0440		
.900	-.0486			-.0116
.950		.0000		

MACH (1) = 3.499 ALPHA (4) = -1.750 PTD = 2175.222 PO = 28.889 R/PT = 1.731 Q = 244.889

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B	.4270	.5340	.6730	.8870
X/C				
.050			.0720	.1246
.400			.0424	
.419	.0808			
.550		.0371		
.600				.0388
.700		-.0083		
.725		.0264		
.808	-.0041			
.850		-.0418		
.900	-.0532			-.0035
.950		.0000		

MACH (1) = 3.499 ALPHA (5) = .250 PTD = 2175.222 PO = 28.889 R/PT = 1.731 Q = 244.889

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B	.4270	.5340	.6730	.8870
X/C				
.050			.0704	.1324
.400			.0559	
.419	.0887			
.550		.0378		
.600				.0547
.700		.0044		
.725		.0258		

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/2049)

AMES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE

MACH (1) = 3.499 ALPHA (5) = .250

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.808	-.0078		
.850		-.0372	
.900	-.0566		-.0514
.950		.0000	

MACH (1) = 3.499 ALPHA (6) = 2.240 PTO = 2175.222 PO = 28.889 R/PT = 1.731 0 = 244.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.050		.1227	.2502
.400		.0538	
.419	.0366		
.550		.0392	
.600			.0705
.700		.0115	
.725	.0277		
.808	-.0084		
.850		-.0336	.0132
.900	-.0591		
.950		.0000	

MACH (1) = 3.499 ALPHA (7) = 4.250 PTO = 2175.222 PO = 28.889 R/PT = 1.731 0 = 244.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.050		.1471	.2664
.400		.0575	
.419	.0474		
.550		.0266	
.600			.0568
.700		.0110	
.725	.0341		
.808	-.0108		
.850		-.0325	.0249
.900	-.0591		
.950		.0000	

DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.499 ALPHA (8) = 6.230 PTO = 2175.222 PO = 28.889 R/FT = 1.731 Q = 244.889
 LBS/049)

AVES 87-710 1A12C M TI SI LOWER WING PRESSURE

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .090 .1393 .3124
 .400 .0540
 .419 .0284
 .590 .0360 .1241
 .600 .0343
 .700 .0487
 .725 -.0110
 .806 -.0098
 .850 .0429
 .900 -.0378
 .950 .0000

MACH (1) = 3.499 ALPHA (9) = 6.240 PTO = 2175.222 PO = 28.889 R/FT = 1.731 Q = 244.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .090 .1531 .3561
 .400 .0616
 .419 .0448
 .590 .0756 .1565
 .600 .0741
 .700 .0328
 .725 .0025
 .806 .0044
 .850 -.0497
 .900 .0663
 .950 .0000

DATE 08 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

ANES 87-710 A12C OR T1 S1 LOWER WING PRESSURE (LB2050) (16 APR 74)

REFERENCE DATA

WREF = 2990.0000 SQ.FT. WREF = 953.0000 IN.
 LREF = 1326.0000 IN. WREF = .0000 IN.
 BREF = 1326.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 WPSRA = .000
 POWER = 1.000 CPM = 23.860
 SPWR = .626 C1MBAL = 1.000
 RUDDER = .000

MACH (1) = 3.499 ALPHA (1) = -7.750 PTO = 2305.222 PO = 30.111 R/PY = 1.465 Q = 299.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0329 .0632
 .400 .0134
 .419 .0805
 .590 .0546
 .800 .0096
 .700 -.0136
 .725 .0569
 .708 .0031
 .850 -.0353
 .900 -.0245
 .920 .0000

MACH (1) = 3.499 ALPHA (2) = -5.770 PTO = 2305.222 PO = 30.111 R/PY = 1.465 Q = 299.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0440 .0994
 .400 .0195
 .419 .0564
 .590 .0392
 .800 .0113
 .700 -.0131
 .725 .0396
 .708 -.0023
 .850 -.0414
 .900 -.0367
 .920 .0000

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-710 1A12C 01 T1 S1 LOWER WING PRESSURE (LB/IN²)
 MACH (1) = 3.499 ALPHA (3) = -3.760 PTO = 2305.222 PO = 30.111 R/PT = 1.465 Q = 259.333

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0219 .1054
 .400 .0416
 .419 .0812 .0349
 .550 .0251
 .600
 .700 -.0055
 .725 .0273
 .806 -.0026
 .850 -.0426
 .903 -.1405
 .950 -.0121
 .0000

MACH (1) = 3.499 ALPHA (4) = -1.760 PTO = 2305.222 PO = 30.111 R/PT = 1.465 Q = 259.333

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0744 .1268
 .400 .0365
 .419 .0636 .0366
 .550 .0413
 .600
 .700 .0003
 .725 .0249
 .806 .0006
 .850 -.0397
 .900 -.0457
 .950 .0008
 .0000

MACH (1) = 3.499 ALPHA (5) = .250 PTO = 2305.222 PO = 30.111 R/PT = 1.465 Q = 259.333

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0739 .1562
 .400 .0616
 .419 .0690 .0488
 .550 .0609
 .600
 .700 .0112
 .725 .0291

DATE 03 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/2050)

AMES 87-710 1A12C OA T1 S1 LOWER WING PRESSURE

MACH (1) = 3.499 ALPHA (5) = .250

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C

.806	.0066		
.850		-.0325	.0133
.900		-.0456	
.950		.0000	

= 259.333

R/FT = 1.465 Q

= 30.111

PO

= 2305.222

PTO

= 2.220

ALPHA (6) =

3.499

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8670

X/C

.050		.1242	.2314
.400		.0653	
.419	.0660		
.550		.0495	.0715
.600			
.700		.0129	
.725	.0304		
.806	-.0014		
.850		-.0293	.0156
.900		-.0490	.0000
.950			

= 259.333

R/FT = 1.465 Q

= 30.111

PO

= 2305.222

PTO

= 4.240

ALPHA (7) =

3.499

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8670

X/C

.050		.1474	.2620
.400		.0721	
.419	.0521		
.550		.0340	.0928
.600			
.700		.0149	
.725	.0265		
.806	.0000		
.850		-.0241	.0258
.900		-.0450	.0000
.950			



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.499 ALPHA (8) = 6.210 PTO = 2305.222 PO = 30.111 R/PT = 1.465 Q = 259.353
 (LB/2050)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.4270	.5340	.6750	.8870
X/C				
.050			.1401	.3078
.400			.0753	
.419		.0465		
.550		.0342		.1228
.600				
.700		.0460		
.725				
.806	.0290			
.850		.0033		.0427
.900	-.0291			
.950		.0000		

MACH (1) = 3.499 ALPHA (9) = 6.230 PTO = 2305.222 PO = 30.111 R/PT = 1.465 Q = 259.353

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.4270	.5340	.6750	.8870
X/C				
.050			.1575	.3613
.400			.1467	
.419		.0582		
.550		.0722		.1573
.600			.0825	
.700		.0355		
.725				
.806	.0263		-.0039	.0772
.850		.0098		
.900			.0000	
.950				

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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AMES 87-710 1A12C 01 T1 S1 LOWER WING PRESSURE (LBZ033) (18 APR 74)

REFERENCE DATA

SRFP = 2690.0000 SQ.FT. XWRP = 953.0000 IN.
 LREF = 1328.0000 IN. YWRP = .0000 IN.
 BRFP = 1328.0000 IN. ZWRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 MPRA = .000
 POWER = 1.000 CPR = 41.000
 SWPR = 1.150 CMBAL = 1.000
 RUDDER = .000

MACH (1) = 3.499 ALPHA (1) = -7.790 PTO = 2433.889 PO = 32.000 R/PT = 1.383 Q = 274.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.050 .0321 .0874
 .400 .0191
 .419 .0633
 .550 .0485
 .600 .0122
 .700 -.0147
 .725 .0352
 .806 .0085
 .850 -.0360
 .900 -.0297
 .950 -.0210
 .0000

MACH (1) = 3.499 ALPHA (2) = -5.800 PTO = 2433.889 PO = 32.000 R/PT = 1.383 Q = 274.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.050 .0437 .0985
 .400 .0281
 .419 .0608
 .550 .0414
 .600 .0149
 .700 -.0078
 .725 .0352
 .806 .0024
 .850 -.0401
 .900 -.0317
 .950 -.0183
 .0000

DATE 06 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/2053)

WACH (1) = 3.499 ALPHA (3) = -3.750 PTO = 2435.689 PO = 32.000 R/PT = 1.363 Q = 274.111
 AWES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 .0270 .1082
 .400 .0545
 .419 .0643
 .550 .0394
 .600 .0265
 .700 .0048
 .725 .0254
 .806 .0192
 .850 -.0362
 .900 -.0253
 .950 -.0087
 .0000

WACH (1) = 3.499 ALPHA (4) = -1.750 PTO = 2435.689 PO = 32.000 R/PT = 1.363 Q = 274.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 .0851 .1280
 .400 .0758
 .419 .0715
 .550 .0498
 .600 .0508
 .700 .0105
 .725 .0363
 .806 .0342
 .850 -.0320
 .900 .0073
 .950 .0000

WACH (1) = 3.499 ALPHA (5) = .250 PTO = 2435.689 PO = 32.000 R/PT = 1.363 Q = 274.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 -12.8600 -12.3500
 .400 -12.8000
 .419 .0733
 .550 .0567
 .600 -12.9500
 .700 -13.3500
 .725 .0566

DATE 06 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/2053)

AMES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE

MACH (1) = 3.499 ALPHA (5) = .250

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.808	.0293		
.890		-13.6400	
.900	-13.9900	-13.3100	
.990		.0000	

MACH (1) = 3.499 ALPHA (6) = 2.200 PTO = 2435.889 PO = 32.000 R/FT = 1.363 Q = 274.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090		.1389	.2361
.400		.1002	
.419	.0719		
.590		.0580	.1102
.600			
.700		.0218	
.725	.0322		
.808	.0803		
.890		-.0190	
.900	-.0179		.0255
.990		.0000	

MACH (1) = 3.499 ALPHA (7) = 4.200 PTO = 2435.889 PO = 32.000 R/FT = 1.363 Q = 274.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090		.1992	.2637
.400		.0808	
.419	.0630		
.590		.0454	.0997
.600			
.700		.0195	
.725	.0340		
.808	.0889		
.890		-.0136	.0299
.900	-.0099		
.990		.0000	

DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

WACH (1) = 3.499 ALPHA (8) = 6.200 PTO = 2435.889 PO = 32.000 R/FT = 1.383 Q = 274.111 (LB/2053)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C			
.050	.1460	.3078	
.400	.0952		
.419	.0542		
.550	.0820	.1289	
.600			
.700	.0563		
.725	.0542		
.808	.0469		
.850	.0122	.0480	
.900	.0018		
.950	.0000		

WACH (1) = 3.499 ALPHA (9) = 8.210 PTO = 2435.889 PO = 32.000 R/FT = 1.383 Q = 274.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C			
.050	.1605	.3566	
.400	.1688		
.419	.0661		
.550	.0841	.1633	
.600			
.700	.0808		
.725	.0466		
.808	.0662		
.850	-.0008	.0913	
.900	.0315		
.950	.0000		

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 07-710 1A12C ON T1 S1 LOWER WING PRESSURE (LB/2054) (16 APR 74)

REFERENCE DATA

SRCP = 2990.0000 SQ.FT. XMRP = 953.0000 IN.
 LREF = 1326.0000 IN. YMRP = .0000 IN.
 BRCP = 1326.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 G1/BAL = 1.000 RUDDER = 10.000

MACH (1) = 2.499 ALPHA (1) = -7.680 PTO = 2514.669 PO = 136.000 R/PY = 3.976 Q = 993.822

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.4270	.5340	.6750	.8870
X/C				
.050			-.0491	-.0267
.400			-.0429	
.419	.0843			
.550		.0505		
.600			-.0707	
.700			-.0361	
.725		-.0360		
.806	-.0668		-.0674	
.850		-.0917	-.1192	
.900			.0000	
.950				

MACH (1) = 2.499 ALPHA (2) = -9.850 PTO = 2514.669 PO = 136.000 R/PY = 3.976 Q = 993.822

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.4270	.5340	.6750	.8870
X/C				
.050			-.0371	-.0036
.400			-.0259	
.419	.0687			
.550		.0267		
.600			-.0555	
.700			-.0304	
.725		-.0323		
.806	-.0704			
.850		-.0671	-.1122	
.900		-.0938		
.950			.0000	



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-710 1A12C OF T1 S1 LOWER WING PRESSURE (LB/IN²)

MACH (1) = 2.499 ALPHA (3) = -3.880 PTO = 2314.889 PO = 136.000 R/PT = 3.976 0 = 993.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090
.400
.419
.550
.600
.700
.725
.806
.850
.900
.950
-.0025
-.0168
.0531
.0456
-.0314
-.0207
-.0861
-.0645
-.0932
-.1040
.0000

MACH (1) = 2.499 ALPHA (4) = -1.840 PTO = 2314.889 PO = 136.000 R/PT = 3.976 0 = 993.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090
.400
.419
.550
.600
.700
.725
.806
.850
.900
.950
.0481
.0677
.0081
.0485
-.0520
-.0111
-.0041
-.0745
-.0698
-.0874
.0000

MACH (1) = 2.499 ALPHA (5) = .180 PTO = 2314.889 PO = 136.000 R/PT = 3.976 0 = 993.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090
.400
.419
.550
.600
.700
.725
.0752
.1097
.0257
-.0112
.0413
.0168
-.0554
.0123

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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(LB 2054)

WING PRESSURE

MACH (1) = 2.499 ALPHA (5) = .160

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C

.808	-.0376		
.850		-.0650	
.900	-.0669	-.0755	
.950		.0000	

MACH (1) = 2.499 ALPHA (6) = 2.150 PTO = 2314.809 PO = 136.700 R/PT = 3.978 0 = 593.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C

.050		.1040	.1530
.400		.0444	
.419	-.0088		
.550		.0369	
.600		.0413	
.700		-.0367	
.725	.0291		
.808	-.0467		
.850		-.0471	
.900	-.0766	-.0590	
.950		.0000	

MACH (1) = 2.499 ALPHA (7) = 4.160 PTO = 2314.809 PO = 136.000 R/PT = 3.978 0 = 593.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C

.050		-1.2120	-1.1220
.400		-1.7310	
.419	-1.8400		
.550		-1.4360	
.600		-2.0480	
.700		-1.9690	
.725	30.9700		
.808	-1.8880		
.850		-2.8090	
.900		30.9100	
.950		.0000	

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURES

PAGE 539

AMES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE (LB/2054)

MACH (1) = 2.499 ALPHA (8) = 6.170 PTD = 2314.869 PO = 136.000 R/PT = 3.976 Q = 593.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090		.1725	.2568
.400		.0995	
.419	.0401		
.590		.0754	.1249
.600			
.700		.0379	
.725	.1199		
.806	.0297		
.890		-.0278	-.0061
.900	.0239		
.950		.0000	

MACH (1) = 2.499 ALPHA (9) = 6.190 PTD = 2314.869 PO = 136.000 R/PT = 3.976 Q = 593.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090		.1975	.3028
.400		.1303	
.419	.1104		
.590		.0800	.1697
.600			
.700		.0776	
.725	.2153		
.806	.0414		
.890		.0803	.0235
.900	.0316		
.950		.0000	

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURE)

082037) (11 APR 74)

AMES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CTR = 31.280 SPAN = .916
 GIMBAL = 1.000 RUDDER = 10.000

REFERENCE DATA

SECT = 2890.0000 30.0 FT. 10000 = 953.0000 IN.
 LEAD = 1328.0000 IN. 10000 = .0000 IN.
 ENDP = 1328.0000 IN. 10000 = 400.0000 IN.
 SCALE = .0190 SCALE

WACH (1) = 2.499 ALPHA (1) = -7.890 PTO = 2293.200 PO = 134.600 R/PT = 2.355 Q = 587.800

SECTION (1) 10081178 WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.5340	.6750	.7800	.8870
X/C						
.080				-.0479		-.0894
.400				-.0363		
.419		.0422				
.590			.0261			
.800						-.0720
.897	.0317					
.700				-.0590		
.725						
.790			-.0337			-.0911
.808						
.832		-.0719				
.850				-.0682		
.900			-.0692			-.1198
.950				-.1033		
.966		-.0236				

WACH (1) = 2.499 ALPHA (2) = -5.880 PTO = 2293.200 PO = 134.600 R/PT = 2.355 Q = 587.800

SECTION (1) 10081178 WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.5340	.6750	.7800	.8870
X/C						
.080				-.0348		-.0039
.400				-.0240		
.419		.0022				
.590			.0268			
.800						-.0540
.897	.0340					
.700				-.0405		
.725						
.790			-.0259			-.0661
.808						
.832		-.0714				
.850				-.0832		
.900			-.0611			-.1117
.950				-.1062		
.966		-.0237				

DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

WACH (1) = 2.499 ALPHA (3) = -3.950 PTO = 2293.200 PO = 134.600 R/PT = 2.355 Q = 587.600
 AYES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE (LB2057)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.0040		.0306	
.400			-.0030			
.419		-.0206				
.950			.0305			
.600					-.0313	
.697	.0862					
.700			-.0807			
.725			-.0125		-.0829	
.750						
.806		-.0867				
.832	-.0743			-.0461		
.850		-.0777			-.0990	
.900			-.1134			
.950						
.966	-.0230					

WACH (1) = 2.499 ALPHA (4) = -1.870 PTO = 2293.200 PO = 134.600 R/PT = 2.355 Q = 587.600

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.0561		.0664	
.400			.0082			
.419		-.0800				
.950			.0109			
.603					-.0059	
.697	.1309					
.700			-.0696			
.725			.0021			
.750					-.0714	
.806		-.0815				
.832	-.0760			-.0849		
.850					-.0658	
.900		-.0783				
.950			-.1153			
.966	-.0293					

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 336

MACH (1) = 2.499 ALPHA (5) = .140 PTO = 2293.200 PO = 134.600 R/PT = 2.355 Q = 587.600
 AMES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE (LB/IN²)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7600	.8670
X/C						
.050				.0061		.1099
.400				.0266		
.419		-.0123				
.590			-.0191			
.600						.0244
.697	.1604					
.700				-.0573		
.723			.0173			
.750						
.808		-.0562			-.0517	
.832	-.0753			-.0612		
.850			-.0622			-.0717
.900				-.1066		
.950						
.966	-.0326					

MACH (1) = 2.499 ALPHA (6) = 2.130 PTO = 2293.200 PO = 124.600 R/PT = 2.355 Q = 587.600

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7600	.8670
X/C						
.050				.1127		.1520
.400				.0445		
.419		-.0056				
.590			-.0216			
.600						.0466
.697	.1663					
.700				-.0360		
.723			.0297			
.750					-.0301	
.808		-.0471				
.832	-.0790					
.850				-.0652		-.0576
.900			-.0666			
.950				-.0949		
.966	-.0310					

AVES 87-P'D 1A12C OI TI SI LOWER WING PRESSURE (LB2057)

MACH (1) = 2.499	ALPHA (°) = 4.14°	PTO = 2293.200	PO = 134.600	R/T = 2.335	Q = 587.600
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DEPENDENT VARIABLE CP

X/Y	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.030				.1359		.2027
.400				.0690		
.419		.0066				
.530			.0290			
.600						.0636
.697	.1713					
.700				-.0024		
.725			.0355			
.750					.0028	
.806		-.0036				
.832	-.0808					
.850						
.900				-.0471		
.930			-.0819			-.0367
.956				-.0886		
	-.0441					

DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
Y/C						
.050				.1772		.2572
.400				.1002		
.419		.0475				
.550			.0688			
.600						.1228
.697	.1837					
.700				.0535		
.725						
.750			.1041			
.808		.0316			.0445	
.832	-.0411					
.850				-.0327		
.900			.0300			-.0060
.950				-.0024		
.996	-.0458					



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB2037)

WACH (1) = 2.498 ALPHA (9) = 6.160 PTD = 2293.200 PO = 134.600 R/M/T = 2.355 U = 597.800

AVES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2980 .4270 .5340 .6730 .7800 .8870

X/C

.090			.1974	.3198
.400			.1345	
.419		.1072		
.550		.0753		.1662
.600				
.637	.2017		.0752	
.700		.2079		
.725			.1148	
.750				
.808		.0489		
.832	-.0280		.0356	.0295
.855		.0375		
.900			.0713	
.950				
.966	-.0484			



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LBZ062) (16 APR 74)

AMES 87-710 1A12C 01 T1 S1 LOWER WING PRESSURE

REFERENCE DATA

REF = 2990.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CPR = 26.860 STRIPR = .768
 GIMBAL = 1.000 RUDDER = 10.000

MACH (1) = 3.002 ALPHA (1) = -7.900 PTO = 2307.333 PO = 62.667 R/PT = 1.985 Q = 394.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8670

X/C
 .090 .0184 .0539
 .400 .0012
 .419 .0344
 .550 .0577
 .600
 .697 .0681
 .700
 .725
 .750
 .806 .0154
 .832 -.0323
 .850 .0511
 .900 -.0633
 .950 -.0758
 .966 -.0165

-.0152

-.0529

-.0579

MACH (1) = 3.002 ALPHA (2) = -5.920 PTO = 2307.333 PO = 62.667 R/PT = 1.985 Q = 394.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8670

X/C
 .090 .0259 .0783
 .400 .0183
 .419 .0267
 .550 .0235
 .600
 .697 .1336
 .700
 .725
 .750 .0109
 .806 -.0366
 .832 -.0169
 .850
 .900
 .950
 .966 -.0093

-.0072

-.0273

-.0522

-.0536

-.0529

-.0781

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

WACH (1) = 3.002 ALPHA (3) = -3.890 PTO = 2307.333 PO = 62.667 R/FT = 1.985 Q = 394.776
 (LB/FOOT)

AVES 87-710 1A12C ON TI S1 LOWER WING PRESSURE

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .0297 .1019
 .400 .0358
 .419 .0269
 .550 -.0029 .0065
 .600
 .697 .1470
 .700
 .725
 .750
 .806
 .832 -.0111
 .850
 .900
 .950
 .966 -.0029
 .0025 -.0324
 -.0422
 -.0666
 -.0616
 -.0889
 -.0440

WACH (1) = 3.002 ALPHA (4) = -1.900 PTO = 2307.333 PO = 62.667 R/FT = 1.985 Q = 394.776

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .1013 .1261
 .400 .0472
 .419 .0263
 .550 .0039 .0271
 .600
 .697 .1244
 .700
 .725
 .750
 .806
 .832 -.0140
 .850
 .900
 .950
 .966 -.0057
 -.0079
 -.0295
 -.0320
 -.0643
 -.0625
 -.0901
 -.0356



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.002 ALPHA (5) = .100 PTO = 2307.333 PO = 62.667 R/FT = 1.985 Q = 394.778
 (LB/2062)

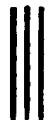
SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090				.1006		.1810
.400				.0682		
.419		.0318				
.550			.0096			
.600						.0496
.697	.0830					
.700				-.0174		
.725			-.0112			
.750				-.0163		
.806		-.0324				
.832	-.0119					
.850			-.0550			
.900		-.0672		-.0196		
.950			-.0819			
.966	-.0026					

MACH (1) = 3.002 ALPHA (6) = 2.070 PTO = 2307.333 PO = 62.667 R/FT = 1.985 Q = 394.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090				.1075		.2044
.400				.0735		
.419		.0307				
.550			.0071			
.600						.0685
.697	.0787			-.0109		
.700						
.725			-.0036			
.750				-.0048		
.806		-.0272				
.832	-.0122					
.850			-.0559			
.900		-.0635		-.0105		
.950			-.0760			
.966	.0066					



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LBZ062)

AMES 87-110 1A12C 01 T1 S1 LOWER WING PRESSURE

MACH (1) = 3.002 ALPHA (7) = 4.090 PTO = 2307.333 PO = 62.667 R/FT = 1.985 0 = 394.776

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.1221	.2387
.400	.0844	
.419		
.550	.0228	
.600	.0120	.0919
.697	.0693	
.750	.0023	.0026
.750		.0122
.806	-.0232	
.832	-.0192	
.850	-.0362	.0022
.900	-.0806	
.950	-.0646	
.966	.0120	

MACH (1) = 3.002 ALPHA (8) = 6.130 PTO = 2307.333 PO = 62.667 R/FT = 1.985 0 = 394.776

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.1500	.2853
.400	.1071	
.419		
.550	.0175	
.600	.0372	.1204
.697	.0625	
.700		.0270
.725	.0100	
.750		.0385
.806	-.0134	
.832	-.0119	
.850	-.0202	.0192
.900	-.0646	
.950	-.0570	
.966	.0114	

DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AVES 87-710 1A12C M1 T1 S1 LOWER WING PRESSURE (LB/IN²)

MACH (1) = 3.002 ALPHA (9) = 6.120 PTD = 2507.333 PO = 62.667 R/FT = 1.985 Q = 394.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090				.1691		.3420
.400				.0977		
.419		.0443				
.550			.0744			
.600						.1469
.697	.0512					
.700				.0794		
.725			.0145			
.750					.0734	
.806		-.0171				
.832	.0074					
.850				-.0028		.0345
.900			-.0661			
.950				-.0463		
.966	.0199					



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE (LB/2063) (18 APR 74)

REFERENCE DATA

SREF = 8990.0000 SQ.FT. XMRP = 933.0000 IN.
 YREF = 1326.0000 IN. YMRP = .0000 IN.
 ZREF = 1326.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 C-MEAL = 1.000 RUDDER = 10.000

MACH (1) = 3.499 ALPHA (1) = -7.740 PTO = 2305.222 PO = 30.000 R/FT = 2.342 Q = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.2990	.4270	.5340	.6730	.7800	.8870
.090	.0344						.0851
.400	.0090						
.419	.0515						
.550	.0777						.0191
.600							
.697	.1165						
.700							
.725	.0482						
.750							
.806	-.0059						
.832	-.0053						
.850							
.900	-.0524						
.950	-.0530						
.966	-.0747						

MACH (1) = 3.499 ALPHA (2) = -5.760 PTO = 2305.222 PO = 30.000 R/FT = 2.342 Q = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.2990	.4270	.5340	.6730	.7800	.8870
.090	.0447						.0968
.400	.0103						
.419	.0356						
.550	.0471						.0163
.600							
.697	.1782						
.700							
.725	.0493						
.750							
.806	-.0075						
.832	-.0053						
.850							
.900	-.0519						
.950	-.0519						
.966	-.0747						



AMES 87-710 (A12C OF T1 S1 LOWER WING PRESSURE (LB/IN²))

MACH (1) = 3.499 ALPHA (3) = -2.740 PTO = 2305.222 PO = 30.000 R/PT = 2.342 Q = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8870

X/C

.050			.0458		.1156
.400			.0299		
.419		.0345			
.550		.0247			.0343
.600					
.697	.1448				
.700			-.0132		
.725		.0369			
.750				-.5328	
.806		-.0086			
.832	-.0043				
.850			-.0443		
.900		-.0536		-.0050	
.950			-.0590		
.966	-.0738				

MACH (1) = 3.499 ALPHA (4) = -1.750 PTO = 2305.222 PO = 30.000 R/PT = 2.342 Q = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8870

X/C

.050			.0608		.1255
.400			.0329		
.419		.0340			
.550		.0209			.0404
.600					
.697	.1364				
.700			-.0109		
.725		.0345			
.750				-.0308	
.806		-.0092			
.832	-.0056				
.850			-.0464		
.900		-.0537		-.0011	
.950			-.0634		
.966	-.0747				



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AVES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE (LB/2083)
 ALPHA (5) = .250 PTO = 2505.222 PO = 30.000 R/FT = 2.342 Q = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

	.2990	.4270	.5340	.6750	.7800	.8870
1.0				.0752	.0420	.1571
2.0			.0394			
3.0			.0208			.0578
4.0	.1300			-.0023		
5.0			.0296		-.0219	
6.0		-.0037				
7.0	-.0021		-.0410			.0097
8.0		-.0557	-.0612			
9.0						
10.0	-.0731					

ALPHA (6) = 2.280 PTO = 2505.222 PO = 30.000 R/FT = 2.342 Q = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

	.2990	.4270	.5340	.6750	.7800	.8870
1.0				.1254	.0392	.2351
2.0			.0301			
3.0			.0192			.0708
4.0	.1085			-.0105		
5.0			.0224		-.0192	
6.0		-.0036				
7.0	-.0085		-.0449			.0150
8.0		-.0607	-.0650			
9.0						
10.0	-.0758					



DATE 09 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURES

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AMES 87-710 1A12C ON T1 SI LOWER WING PRESSURE (LB/2083)

MACH (1) = 3.498 ALPHA (1) = 4.290 PTD = 2305.822 PO = 30.000 R/PT = 2.342 Q = 299.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090			.1487		.2645
.400			.0414		
.419		.0230			
.590		.0099			
.600					.0921
.697	.0945				
.700			-.0104		
.725		.0250		-.0099	
.750					
.806		-.0054			
.832	-.0070				
.890			-.0428		.0290
.900		-.0563			
.930			-.0629		
.966	-.0742				

MACH (1) = 3.498 ALPHA (8) = 6.310 PTD = 2305.822 PO = 30.000 R/PT = 2.342 Q = 299.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090			.1391		.3095
.400			.0529		
.419		.0069			
.590		.0182			.1250
.600					
.697	.0700		.0032		
.700					
.725		.0460		.0147	
.750					
.806		-.0087			
.832	-.0097				
.890			-.0301		.0436
.900		-.0487			
.930			-.0470		
.966	-.0714				



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

WACH (1) = 3.492 ALPHA (9) = 8.29C PTD = 2305.222 PO = 30.000 P/PT = 2.342 Q = 259.111 (LB/FOOT)

SECTION 1 (1) ORBITER WING DEPENDENT VARIABLE CP

X/C Y/C

.090	.1572	.3619
.400	.0759	
.419		
.590	.0340	.0444
.600		.1594
.657	.0433	
.700	.0216	
.725	.0387	
.750		.0409
.806	-.0168	
.872	-.0193	
.890		-.0048
.970	-.0379	.0682
.990		-.0308
.996	-.0112	

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 391

AUG 87-710 1A12C OF T1 S1 LOWER WING PRESSURE (LB/2000) (10 APR 74)

REFERENCE DATA

$WREF = 8990.0000$ SQ.FT. $WAPP = 933.0000$ IN.
 $LWREF = 1328.0000$ IN. $LWAPP = .0000$ IN.
 $BWREF = 1328.0000$ IN. $BWAPP = 400.0000$ IN.
 $SCALE = .0190$ SCALE

PARAMETRIC DATA

$BETA = .000$ $POWER = 1.000$
 $OPR = 23.880$ $SMPR = .808$
 $SIMBAL = 1.000$ $RUDER = 10.000$

$MACH (1) = 3.499$ $ALPHA (1) = -7.770$ $PTO = 2310.222$ $PO = 30.000$ $R/PY = 1.449$ $Q = 290.000$

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/C .2990 .4270 .5340 .6750 .7600 .8870

X/C
 .090 .0910 .0936
 .400 .0900
 .419 .0373
 .590 .0466
 .600 .0263
 .697 .2101
 .700 .0035
 .725 .0566
 .750 .0209
 .706 -.0017
 .732 .0217
 .750 -.0165
 .900 -.0143
 .900 -.0025
 .930 -.0371
 .966 .0716

$MACH (1) = 3.499$ $ALPHA (2) = -9.750$ $PTO = 2310.222$ $PO = 30.000$ $R/PY = 1.449$ $Q = 290.000$

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/C .2990 .4270 .5340 .6750 .7600 .8870

X/C
 .090 .0811 .1151
 .400 .0405
 .419 .0566
 .590 .0322
 .600 .0339
 .697 .1634
 .700 .0060
 .725 .0376
 .750 .0153
 .706 -.0026
 .732 .0290
 .750 -.0201
 .900 -.0190
 .900 .0025
 .930 -.0402
 .966 .0782

DATE 03 DEC 74 TABULATED SOURCE DATA (AIRC(WING PRESSURES))

WING 07-710 1A12C ON TI SI LOWER WING PRESSURE (R2000)

MACH (1) = 3.498 ALPHA (3) = -3.770 PTO = 2310.222 PO = 30.000 R/PT = 1.449 Q = 200.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B .2990 .4270 .5340 .6730 .7400 .8870

X/C

.050 .0410 .1197
 .400 .0671
 .419 .0594
 .470 .0300 .0437
 .600 .0522
 .667 .0171
 .700 .0223 -.0092
 .740 .0049
 .832 .0399
 .840 -.0192
 .900 -.0171 .0100
 .940 -.0448
 .964 .0736

MACH (1) = 3.499 ALPHA (4) = -1.750 PTO = 2310.222 PO = 30.000 R/PT = 1.449 Q = 200.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B .2990 .4270 .5340 .6730 .7400 .8870

X/C

.050 .0543 .1424
 .400 .0817
 .419 .0825
 .470 .0346 .0597
 .600 .0643
 .667 .0207
 .700 .0210 .0075
 .740 .0039
 .832 .0611
 .840 -.0206
 .900 -.0234 .0238
 .940 -.0463
 .964 .0619



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.499 ALPHA (5) = .250 PTO = 2310.222 PO = 30.000 R/PT = 1.449 Q = 260.000
 AMES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE (1B2066)

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .050 .0911 .1711
 .400 .1035
 .419 .3666
 .550 .0443 .0801
 .600
 .697 .0515 .0298
 .700 .0296 .0216
 .725
 .750 .0100
 .806 .0613
 .832 -.0124
 .850 -.0179 .0573
 .900 -.0390
 .950
 .966 .0368

MACH (1) = 3.499 ALPHA (6) = 2.220 PTO = 2310.222 PO = 30.000 R/PT = 1.449 Q = 260.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .050 .1401 .2440
 .400 .1017
 .419 .0654
 .550 .0446 .0873
 .600
 .697 .0399 .0270
 .700 .0279 .0253
 .725
 .750 -.0023
 .806 .0470
 .832 -.0115 .0329
 .850 -.0293
 .900 -.0385
 .950
 .966 .0524



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/2066)

AVES 87-710 1A12C OF T1 S1 LOWER WING PRESSURE
 MACH (1) = 3.499 ALPHA (1) = 4.240 PTO = 2310.222 PO = 30.000 R/FT = 1.449 Q = 280.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .1665 .2809
 .400 .0915
 .419 .0537 .0334 .1109
 .550 .0302 .0309 .0319
 .600 .0274 .0046
 .697 .0476 .0033 .0438
 .700 .0173 .0272
 .725 .0524
 .750 .0566

MACH (1) = 3.499 ALPHA (8) = 6.200 PTO = 2310.222 PO = 30.000 R/FT = 1.449 Q = 280.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .1550 .3166
 .400 .0959
 .419 .0453 .0453 .1369
 .550 .0297 .0580
 .600 .0443 .0341
 .697 .0326 .0168 .0578
 .700 .0504 .0043 .0180
 .725 .0522 .0043 .0180
 .750 .0550 .0043 .0180
 .790 .0550 .0043 .0180
 .966 .0622

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 355

(LBZ066)

AVES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE

R/FT = 1.449 Q = 260.000

MACH (1) = 3.499 ALPHA (9) = 8.230 PTO = 2310.222 PO = 30.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090				.1712		.3756
.400				.1474		
.419		.0592				
.550			.0793			
.603						.1726
.697	.0457					
.700				.0798		
.725			.0412			
.750					.1202	
.806	.0675					
.832						
.850				.0117		.0953
.900			.0171			
.950				-.0225		
.966	.0537					



DATE 08 DEC 74

TABULATED SOURCE DATA - (A12C WING PRESSURES)

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AVES 87-710 A12C 05 T1 S1 LOWER WING PRESSURE

(LBZ06P) (16 APR 74)

REFERENCE DATA

SPRP = 2890.0000 SQ.FT. XMRP = 953.0000 IN.
 LMRP = 1328.0000 IN. YMRP = .0000 IN.
 BRP = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CPR = 31.260 SWPR = .916
 GYBAL = 1.000 RUDDER = 10.000

MACH (1) = 2.499 ALPHA (1) = -7.910 PTO = 2314.444 PO = 135.778 R/FT = 2.990 Q = 593.222

SECTION (1) ORBITTER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 -.0430 -.0240
 .400 -.0360
 .419 .0413
 .550 .0268
 .600 -.0672
 .697 .0301
 .700 -.0350
 .725 -.0377
 .750 -.0473
 .806 -.0729
 .832 -.0365
 .850 -.0826
 .900 -.0822
 .920 -.1153
 .930 -.0990
 .966 -.0119

MACH (1) = 2.499 ALPHA (2) = -5.060 PTO = 2314.444 PO = 135.778 R/FT = 2.990 Q = 593.222

SECTION (1) ORBITTER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 -.0296 .0012
 .400 -.0210
 .419 -.0047
 .550 .0218
 .600 -.0503
 .697 .0350
 .700 -.0370
 .725 -.0301
 .750 -.0829
 .806 -.0751
 .832 -.0432
 .850 -.0811
 .900 -.0775
 .920 -.1015
 .930 -.1068
 .966 -.0174

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 357

MACH (1) = 2.499 ALPHA (3) = -3.880 PTO = 2314.444 PO = 135.778 R/FT = 2.990 Q = 993.222
 AWES 87-710 1A12C 05 T1 S1 LOWER WING PRESSURE (LB/2067)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.050				.0112	.0357	
.400				.0007		
.419		-.0251				
.550			.0244			
.600						-.0270
.697	.0700					
.700				-.0377		
.725						
.750			-.0170			
.806					-.0782	
.832	-.0743		-.0713			
.850				-.0806		
.900		-.0793			-.0951	
.950				-.1080		
.966	-.0189					

MACH (1) = 2.499 ALPHA (4) = -1.880 PTO = 2314.444 PO = 135.778 R/FT = 2.990 Q = 993.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.050				.0632	.0707	
.400				.0127		
.419		-.0296				
.550			.0022			
.600						-.0003
.697	.1265					
.700				-.0653		
.725			-.0031			
.750					-.0672	
.806		-.0677				
.832	-.0723					
.850				-.0604		
.900		-.0710			-.0815	
.950				-.1081		
.966	-.0218					

DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-710 1A12C CS T1 S1 LOWER WING PRESSURE (LBZ067)

MACH (1) = 2.499 ALPHA (5) = .110 PTO = 2314.444 PO = 135.778 R/FT = 2.990 Q = 593.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .0914 .1134
 .400 .0322
 .419 -.0135
 .550 -.0209
 .600 .0276
 .697 .1590
 .700 -.0525
 .725 .0080
 .750 -.0472
 .806 -.0568
 .832 -.0713
 .850 -.0765
 .900 -.0669
 .950 -.1042
 .966 -.0245

MACH (1) = 2.499 ALPHA (6) = 2.110 PTO = 2314.444 PO = 135.778 R/FT = 2.990 Q = 593.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .1175 .1567
 .400 .0482
 .419 -.0086
 .550 -.0229
 .600 .0500
 .697 .1627
 .700 -.0318
 .725 .0282
 .750 -.0252
 .806 -.0494
 .832 -.0764
 .850 -.0612
 .900 -.0848
 .950 -.0895
 .966 -.0303



(LB/2087)

AVES 87-710 (A12C OS T1 S1 LOWER WING PRESSURE

MACH (1) = 2.499 ALPHA (7) = 4.130 PTO = 2314.444 PO = 135.776 R/PT = 2.990 Q = 593.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050			.1376		.2058
.400			.0720		
.419		.0035			
.590			.0163		
.600					.0858
.697	.1697				
.700			.0003		
.725					
.750		.0344		.0065	
.806					
.832	-.0646	-.0084			
.850			-.0426		
.900		.0052		-.0330	
.950			-.0837		
.966	-.0457				

MACH (1) = 2.499 ALPHA (8) = 6.130 PTO = 2314.444 PO = 135.776 R/PT = 2.990 Q = 593.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050			.1761		.2599
.400			.1035		
.419		.0395			
.590			.0667		.1255
.600					
.697	.1646				
.700			.0514		
.725					
.750		.1020		.0456	
.806					
.832	-.0446	.0275			
.850			-.0273		-.0014
.900		.0343		.0043	
.950					
.966	-.0645				



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

WING (1) = 2.499 ALPHA (9) = 5.160 PTC = 2314.444 PC = 135.778 R/PT = 2.990 Q = 593.222
(LBZ007)

AVES 87-710 1A12C OB T1 S1 LOWER WING PRESSURE

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

X/C .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.1987	.3220
.400	.1357	
.419		
.550	.1028	
.600	.0702	.1676
.697		
.700	.0791	
.725		
.750	.2034	.1178
.806	.0451	
.832	-.0332	
.850		.0366
.900	.0414	.0293
.950		.0758
.966	-.0644	



AMES 87-710 1A12C 03 T1 S1 LOWER WING PRESSURE (LB2068) (16 APR 74)

REFERENCE DATA

9827 = 2990.0000 SQ.FT. 7499 = 953,0000 IN.
 1827 = 1328.0000 IN. 7499 = .0000 IN.
 6127 = 1328.0000 IN. 7499 = 400,0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA =	.000	POWER =	1.000
OPR =	31.260	SRMR =	.916
GINRAL =	1.000	RUDDER =	10.000

WACH (1) =	2.499	ALPHA (1) =	-7.870	PTO	=	2311.333	PO	=	135.444	R/PT	=	2.937	Q	=	592.444
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DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

y/B	.2990	.4270	.5340	.6730	.7800	.8870
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22

.050	-.0451	-.0237
.400	-.0369	
.419		
.550	.0566	
.600	.0262	
.697		-.0660
.700	.0237	
.725	-.0368	
.750	-.0396	-.0642
.806	-.0723	
.832	-.0728	
.850		
.900	-.0656	-.1161
.950	-.1021	
.966	-.0360	

WACH (1) =	2.499	ALPHA (2) =	-3.870	PTO	= 2311.333	PO	= 135.444	RCY	= 2.937	0	= 592.444
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DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B	.2990	.4270	.5340	.6750	.7600	.8870
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xx

Variable	Mean	Standard Deviation	Minimum	Maximum
1. Age	39.00	10.00	20.00	50.00
2. Sex	1.00	0.00	1.00	1.00
3. Education	12.00	2.00	10.00	14.00
4. Income	30.00	15.00	10.00	50.00
5. Health	2.00	1.00	1.00	3.00
6. Stress	4.00	2.00	1.00	6.00
7. Sleep	7.00	2.00	5.00	9.00
8. Diet	3.00	1.00	1.00	4.00
9. Exercise	2.00	1.00	1.00	3.00
10. Mood	5.00	2.00	3.00	7.00
11. Energy	6.00	2.00	4.00	8.00
12. Focus	4.00	1.00	3.00	5.00
13. Patience	3.00	1.00	2.00	4.00
14. Resilience	4.00	1.00	3.00	5.00
15. Optimism	5.00	1.00	4.00	6.00
16. Gratitude	4.00	1.00	3.00	5.00
17. Mindfulness	3.00	1.00	2.00	4.00
18. Self-awareness	4.00	1.00	3.00	5.00
19. Emotional stability	5.00	1.00	4.00	6.00
20. Life satisfaction	6.00	1.00	5.00	7.00

DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/2000)

AVES 07-710 1A12C 08 TH SI LOWER WING PRESSURE

MACH (1) = 2.499 ALPHA (3) = -3.000 PTO = 2511.333 PO = 135.444 R/FT = 2.937 Q = 592.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.080 .0069 .0332
 .400 -.0034
 .419 -.0237
 .550 .0286
 .600 -.0320
 .697 .0424
 .700 -.0483
 .725 -.0221
 .750 -.0806
 .806 -.0751
 .832 -.0672
 .850 -.0826
 .900 -.0773
 .950 -.1112
 .966 -.0993
 .966 -.0417

MACH (1) = 2.499 ALPHA (4) = -1.850 PTO = 2511.333 PO = 135.444 R/FT = 2.937 Q = 592.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.030 .0379 .0664
 .400 .0102
 .419 -.0265
 .550 .0142
 .600 -.0090
 .697 .1083
 .700 -.0674
 .725 -.0071
 .750 -.0701
 .806 -.0994
 .832 -.0699
 .850 -.0620
 .900 -.0772
 .950 -.1106
 .966 -.0646
 .966 -.0442



DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 2.499 ALPHA (5) = .170 PTO = 2311.333 PO = 135.444 R/PT = 2.937 U = 998.444
 (LBZ086)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6790 .7800 .8870

X/C

.080 .0668 .1102
 .400 .0274
 .419 -.0183
 .550 -.0219 .0221
 .600
 .697 .1903
 .700 -.0579
 .725 .0060
 .750 -.0223
 .808 -.0808
 .832 -.0870
 .890 -.0793
 .900 -.0638
 .950 -.1067
 .966 -.0486

MACH (1) = 2.499 ALPHA (6) = 2.130 PTO = 2311.333 PO = 135.444 R/PT = 2.937 Q = 998.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6790 .7800 .8870

X/C

.080 .1113 .1590
 .400 .0446
 .419 -.0119
 .550 -.0272 .0442
 .600
 .697 .1560
 .700 -.0563
 .725 .0213
 .750 -.0293
 .808 -.0921
 .832 -.0838
 .890 -.0847
 .900 -.0662
 .950 -.0931
 .966 -.0428

MACH (1) = 2.499 ALPHA (1) = 4.170 PTO = 2311.333 PO = 135.444 R/P1 = 2.937 Q = 592.444
 AMES 87-710 1A12C OB T1 S1 LOWER WING PRESSURE (LB/2088)

SECTION (1) ORBITER WING DEPENDENT VARIABLE C_P

Y/B .2990 .4270 .5340 .6750 .7800 .8670

X/C

.090			.1329		.2028
.400			.0675		
.419		-.0003			
.590			.0174		
.600					.0606
.697	.1666				
.700			-.0012		
.725		.0299		.0037	
.750					
.806	-.0106				
.832	-.0964				
.850		-.0460			
.900		.0017		-.0344	
.950			-.0639		
.966	-.0562				

MACH (1) = 2.499 ALPHA (1) = 6.130 PTO = 2311.333 PO = 135.444 R/P1 = 2.937 Q = 592.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE C_P

Y/B .2990 .4270 .5340 .6750 .7800 .8670

X/C

.090			.1722		.2577
.400			.0994		
.419		.0390			
.590			.0822		.1209
.600					
.697	.1795				
.700			.0531		
.725		.0967		.0440	
.750					
.806	.0255				
.832	-.0463				
.850		-.0315		-.0046	
.900		.0315		-.0025	
.950					
.966	-.0630				



DATE 03 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

MACH (1) = 2.499 ALPHA (9) = 8.160 PTD = 2311.333 PO = 135.444 R/FT = 2.937 Q = 592.444
 (0.82068)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.5340	.8750	.7800	.6870
X/C						
.090				.1949		.3209
.407				.1330		
.419		.0999				
.550			.0661			.1646
.600						
.697	.1998			.0763		
.700						
.725			.1991		.1164	
.750						
.806		.0432				
.832	-.0333					
.850			.0301			.2291
.900			.0396		.0740	
.950						
.956	-.0617					

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AME: 87-710 1A12C OB TI SI LOWER WING PRESSURE (LBZ089) (18 APR 74)

REFERENCE DATA

WREF = 2000.0000 SQ.FT. WARP = 955.0000 IN.
 LREF = 1328.0000 IN. WARP = .0000 IN.
 BREF = 1328.0000 IN. WARP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 PWLER = 1.000
 CTR = 20.000 SHPR = .768
 GIMBAL = 1.000 RUDDER = 10.000

MACH (1) = 3.005 ALPHA (1) = -7.890 PTO = 2308.778 PO = 82.556 R/PT = 2.245 Q = 394.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .090 .0229 .0805
 .400 .0051
 .419 .0413
 .590 .0592
 .600 -.0084
 .697 .0183
 .700 -.0084
 .725 -.0475
 .790 .0183
 .808 -.0329
 .832 -.0084
 .890 -.0449
 .900 -.0820
 .920 -.0795
 .950 -.0527
 .968 -.0185

MACH (1) = 3.005 ALPHA (2) = -9.690 PTO = 2308.778 PO = 82.556 R/PT = 2.245 Q = 394.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .090 .0285 .0814
 .400 .0181
 .419 .0290
 .590 .0319
 .600 -.0049
 .697 .0118
 .700 -.0214
 .725 .0096
 .790 -.0501
 .808 -.0374
 .832 -.0277
 .890 -.0495
 .900 -.0808
 .920 -.0753
 .950 -.0494
 .968 -.0189



DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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AVES 87-710 1A12C C8 T1 S1 LOWER WING PRESSURE (LB/2069)

MACH (1) = 3.003 ALPHA (3) = -3.690 PTC = 2308.778 PO = 62.556 R/FT = 2.245 Q = 394.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050				.0315		.1067
.400				.0397		
.419		.0241				
.550			-.0021			.0127
.600						
.697	.1404					
.700				-.0268		
.725			.0040			
.750					-.0396	
.806		-.0376				
.832	-.0176			-.0593		
.850			-.0579			-.0406
.900				-.0807		
.950						
.966	-.0050					

MACH (1) = 3.003 ALPHA (4) = -1.890 PTC = 2308.778 PO = 62.556 R/FT = 2.245 Q = 394.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050				.1038		.1256
.400				.0489		
.419		.0255				
.550			.0000			.0326
.600						
.697	.1335			-.0257		
.700			-.0068			
.725					-.0291	
.750						
.806		-.0329				
.832	-.0176			-.0602		
.850						-.0306
.900			-.0599			
.950				-.0844		
.966	-.0129					

(LBZ069)

AMES 87-710 1A12C 05 T1 S1 LOWER WING PRESSURE

MACH (1) = 3.003 ALPHA (5) = .100 PTO = 2308.778 PO = 62.556 R/FT = 2.245 Q = 394.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.0985	.1631
.400	.0731	
.419		
.550	.0061	
.600		.0509
.97	.0984	
.700		
.725		
.750		
.808		
.832		
.850		
.900		
.950		
.966		

MACH (1) = 3.003 ALPHA (6) = 2.070 PTO = 2308.778 PO = 62.556 R/FT = 2.245 Q = 394.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.1044	.2072
.400	.0755	
.419		
.550	.0267	
.600	.0015	.0717
.697	.0922	
.700		
.725		
.750		
.808		
.832		
.850		
.900		
.950		
.966		



DATE 05 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

MACH (1) = 3.003 ALPHA (7) = 4.090 PTD = 2308.778 PO = 62.556 R/FT = 2.245 Q = 394.889
 AVES 87-710 (A12C OB T1 SI LOWER WING PRESSURE) (LB/2069)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090				.1260		.2420
.400				.0888		
.419		.0168				
.550			.0060			.0963
.600						
.697	.0794			.0064		
.700						
.723			-.0015		.0197	
.750						
.805		-.0249				
.832	-.0246			-.0344		.0068
.850			-.0566			
.900				-.0598		
.950						
.966	.0024					

MACH (1) = 3.003 ALPHA (8) = 6.070 PTD = 2308.778 PO = 62.556 R/FT = 2.245 Q = 394.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090				.1536		.2885
.400				.1101		
.419		.0116				
.550			.0291			.1233
.600						
.697	.0707			.0305		
.700						
.723			.0055		.0450	
.750						
.806		-.0171				
.832	-.0229			-.0134		.0216
.850			-.0801			
.900				-.0498		
.950						
.966	.0001					

AMES 87-710 1A12C 08 71 51 LOWER WING PRESSURE (LBZ069)

MACH (1) = 3.003 ALPHA (9) = 8.100 PTO = 2308.778 PO = 62.556 R/FT = 2.245 Q = 394.869

DEPENDENT VARIABLE CP

Yr	X/C	.2990	.4270	.5340	.6750	.800	.8870
.050							
.400					.1728		.3457
.419					.0950		
.550		.0407					
.600			.0715				.1550
.657		.0298					
.700					.0871		
.725			.0110				
.750						.0991	
.806			-.0194				
.832		.0034					
.850					.0038		
.900			-.0667				.0402
.950					-.0389		
.966		.0017					

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AMES 87-710 1A12C OB T1 S1 LOWER WING PRESSURE (LB2070) (16 APR 74)

PARAMETRIC DATA

XREF = 2890.0000 SQ.FT. XMRP = 952.0000 IN.
 LREF = 1328.0000 IN. YMRP = .0000 IN.
 BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE
 MACH (1) = 3.499 ALPHA (1) = -7.760 PTO = 2310.111 PO = 30.111 R/FT = 1.753 Q = 259.869
 BETA = .000 POWER = 1.000
 CPR = 23.860 SMPR = .828
 GIMBAL = 1.000 RUDDER = 10.000

REFERENCE DATA

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.0432		.0943	
.400			.0226			
.419		.0545				
.550			.0496			.0247
.600						
.697	.2110					
.700				-.0022		
.725			.0577		-.0285	
.750						
.806		-.0040				
.832	.0155					
.850			-.0211		-.0055	
.900			-.0238			
.950			-.0411			
.966	.0829					

MACH (1) = 3.499 ALPHA (2) = -5.750 PTO = 2310.111 PO = 30.111 R/FT = 1.753 Q = 259.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.0551		.1083	
.400			.0307			
.419		.0557				
.550			.0323			.0247
.600						
.697	.1683					
.700			-.0003			
.725			.0394		-.0248	
.750						
.806		-.0070				
.832	.0154					
.850			-.0280		-.0063	
.900			-.0280			
.950			-.0492			
.966	.0558					

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES)

(LB/2070)

AMES 87-710 1A12C OB T1 S1 LOWER WING PRESSURE

MACH (1) = 3.499 ALPHA (3) = -3.770 PTO = 2310.111 PO = 30.111 R/PT = 1.753 Q = 259.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090			.0314		.1135
.400			.0334		
.415		.0576			
.550		.0275			.0368
.800					
.697	.1036		.0075		
.700					
.725		.0237			
.750					
.808					
.832	.0227				
.850					
.900					
.950					
.966					

MACH (1) = 3.499 ALPHA (4) = -1.770 PTO = 2310.111 PO = 30.111 R/PT = 1.753 Q = 259.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090			.0863		.1387
.400			.0709		
.419		.0803			
.550		.0238			.0536
.800					
.697	.0840		.0140		
.700					
.725		.0184			
.750					
.808					
.832	.0281				
.850					
.900					
.950					
.966					



DATE: 05 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURES

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AMES 87-710 1A12C 08 11 S1 LOWER WING PRESSURE (LB/2070)

MACH (1) = 3.499 ALPHA (5) = .250 PTO = 2310.111 PO = 30.111 R/FT = 1.753 Q = 259.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050			.0828		.1646
.400			.0882		
.419		.0634			
.550			.0389		.0692
.600					
.697	.0438				
.700			.0205		
.725		.0243		.0118	
.750					
.806	-.0046				
.832	.0422				
.850			-.0223		.0227
.900		-.0375			
.950			-.0463		
.966	.0369				

MACH (1) = 3.499 ALPHA (6) = 2.250 PTO = 2310.111 PO = 30.111 R/FT = 1.753 Q = 259.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050			.1370		.2433
.400			.0957		
.419		.0572			
.550			.0371		.0832
.600					
.697	.0355				
.700			.0262		
.725		.0240		.0218	
.750					
.806	-.0142				
.832	.0366				
.850			-.0145		.0273
.900		-.0368			
.950			-.0411		
.966	.0367				

AMES 87-710 1A12C OB T1 S1 LOWER WING PRESSURE (LB/2070)

MACH (1) = 3.499 ALPHA (7) = 4.250 PTO = 2310.111 PO = 30.111 R/PT = 1.755 Q = 299.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090			.1609		.2761
.400			.0787		
.419		.0474			
.550			.0246		.1052
.600					
.697	.0264				
.700			.0266		
.725		.0246		.0214	
.750					
.806	-.0124				
.832	.0322				
.850			-.0149		.0370
.900		-.0403			
.950			-.0349		
.966	.0362				

MACH (1) = 3.499 ALPHA (8) = 6.250 PTO = 2310.111 PO = 30.111 R/PT = 1.755 Q = 299.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090			.1509		.3184
.400			.0907		
.419		.0359			
.550			.0366		.1556
.600					
.697	.0207				
.700			.0549		
.725		.0397		.0516	
.750					
.806	.0212				
.832	.0406				
.850			.0126		.0543
.900		-.0203			
.950			-.0200		
.966	.0466				

DATE 09 DEC 74
 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)
 MACH (1) = 3.499 ALPHA (9) = 8.230 P70 = 2313.111 PO = 30.111 R/PT = 1.753 Q = 259.889
 AVES 87-710 1A12C C8 T1 S1 LOWER WING PRESSURE (LB/FT²)

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SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050				.1671		.3740
.400				.1296		
.419		.0461				
.550			.0754			.1703
.600						
.697	.0405			.0791		
.700						
.725			.0317		.1165	
.750						
.806		.0492				
.832	.0591					
.850			.0111			.0839
.900			.0052			
.950					-.0269	
.966	.0454					

TABULATED SOURCE DATA - 1A12C WING PRESSURES

DATE 03 DEC 74

(LB 2071) (16 APR 74)

AMES 87-710 1A12C OS T1 S1 LOWER WING PRESSURE

REFERENCE DATA

SPOT = 2690.0000 SQ.FT. XREF = 953.0000 IN.
LREF = 1328.0000 IN. YREF = .0000 IN.
BREF = 1328.0000 IN. ZREF = 400.0000 IN.
SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 2.000
SMRPR = .826 CIMEAL = 1.000
RUDDER = 10.000

MACH (1) = 3.499 ALPHA (1) = -7.750 PTO = 2295.556 PO = 30.000 R/PT = 1.746 Q = 256.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C					
.090			.0440		.0933
.400			.0216		
.419		.0479			
.590			.0906		.0246
.600					
.697	.2049				
.710			-.0726		
.719		.0945		-.0296	
.730					
.806		-.0081			
.832	-.0016		-.0217		
.850				-.0053	
.900		-.0195			
.950			-.0420		
.966	-.0162				

MACH (1) = 3.499 ALPHA (2) = -5.740 PTO = 2295.556 PO = 30.000 R/PT = 1.746 Q = 256.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C					
.090			.0519		.1079
.400			.0265		
.419		.0479			
.590			.0271		.0255
.600					
.697	.1737				
.700			-.0022		
.725		.0591		-.0266	
.750					
.806		-.0933			
.812	-.0069				
.850			-.0277		-.0070
.900		-.0277		-.0453	
.950					
.966	-.0268				



DATE 05 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

WACH (1) = 3.499 ALPHA (3) = -3.74C PTD = 2295.556 PO = 30.000 R/PT = 1.746 Q = 250.222 (LB2071)

(LB2071)

AMES 87-710 (A12C CS T1 S1 LOWER WING PRESSURE)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6750	.7600	.8870
X/C						
.090			.0322		.1131	
.400			.0455			
.419		.0470				
.550			.0235			
.600					.0344	
.697	.1271					
.700			.0016			
.725			.0219			
.750					-.0172	
.806		-.0141				
.832	-.0142			-.0306		
.850			-.0292		-.0020	
.900				-.0547		
.950						
.966	-.0256					

WACH (1) = 3.499 ALPHA (4) = -1.750 PTD = 2295.556 PO = 30.000 R/PT = 1.746 Q = 250.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6750	.7600	.8870
X/C						
.090				.0495		.1357
.400				.0650		
.419		.0524				
.550			.0276			.0502
.600						
.697	.0866					
.700			.0121			
.725			.0147			
.750					-.0076	
.806		-.0136				
.832	-.0143					
.850			-.0255			.0099
.900			-.0315			
.950				-.0517		
.966	-.0132					

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 67-710 1A12C 05 T1 S1 LOWER WING PRESSURE (LB/2071)

MACH (1) = 3.498 ALPHA (S) = .290 PTO = 2295.556 PO = 30.000 R/PT = 1.746 Q = 256.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7600	.8870
X/C						
.090				.0649		.1662
.400				.0772		
.419		.0517				
.550			.0519			.0679
.600						
.697	.0412					
.700			.0205			
.725			.0193			
.750					.0063	
.808		-.0125				
.832	-.0061					
.850			-.0227			.0172
.900		-.0569				
.950			-.0476			
.966	-.0041					

MACH (1) = 3.499 ALPHA (S) = 2.240 PTO = 2295.556 PO = 30.000 R/PT = 1.746 Q = 256.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7600	.8870
X/C						
.090				.1355		.2430
.400				.0662		
.419		.0513				
.550			.0515			.0790
.600						
.697	.0336					
.700			.0201			
.725			.0205		.0031	
.750						
.808		-.0162				
.832	-.0052					
.850			-.0225			.0217
.900		-.0417				
.950			-.0463			
.966	-.0036					

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AVES 07-110 1A12C OB Y1 S1 LOWER WING PRESSURE (LB/20711)
 MACH (1) = 3.499 ALPHA (1) = 4.240 P/Q = 2295.556 P/Q = 30.000 R/P/T = 1.746 Q = 258.222

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7600 .8870

X/C

.090 .1973 .2738
 .400 .0666
 .419 .0376 .0140 .0994
 .400 .0229
 .697 .0206 .0092
 .725 .0200
 .750 .0181 .0327
 .822 -.0083 -.0400 -.0395
 .850 .0327
 .900 .0327
 .950 .0327
 .965 -.0092

MACH (1) = 3.499 ALPHA (8) = 6.200 P/Q = 2295.556 P/Q = 30.000 R/P/T = 1.746 Q = 258.222

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7600 .8870

X/C

.090 .1427 .3144
 .400 .0661
 .419 .0174 .0245 .1317
 .400 .0229
 .697 .0459
 .725 .0355 .0264
 .750 .0264
 .822 -.0101 .0021 .0530
 .850 -.0340 -.0219
 .900 -.0219
 .950 -.0219
 .965 -.0074

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 380

AWEZ 87-P10 1A12C CB T1 S1 LOWER WING PRESSURE (LB/FT²)

MACH (1) = 3.499 ALPHA (9) = 8.290 MTD = 225.556 PO = 30.000 R/PT = 1.746 Q = 256.222

SECTION 1 (1108) WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8470

X/C

.090		.1651		.3617
.400		.0884		
.419	.0543			
.590		.0810		.1661
.600				
.697	.0284			
.730		.0938		
.725		.0253		.0543
.790				
.808	-.0160			
.832	.0149			
.890		.0199		.0755
.900		-.0437		
.930			-.0207	
.966	.0099			



DATE 03 DEC 74

WING DATA - 1A12C (WING PRESSURES)

187072) (10 APR 74)

1120 01 21 9A LOWER WING PRESSURE

PARAMETRIC DATA

BETA	=	.000	POWER	=	1.000
OPR	=	\$1.260	SNRPR	=	.916
GTWHL	=	1.000	RUDDER	=	.000

REFERENCE DATA

3450	=	2990.0000	50.FT.	3040	=	953.0000	IN.
1460	=	1328.0000	IN.	1470	=	.0000	IN.
3460	=	1328.0000	IN.	3470	=	400.0000	IN.
SCALE	=	.0190	SCALE				

$$\text{MACH} (1) = 2.498 \quad \text{ALPHA} (1) = -7.890$$

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING	DEPENDENT VARIABLE
2000	.4270
	.5340
	.6730
	.7800
	.8870

χ^2 - .0469
 - .0393
 - .0289

.400	.0411	.0276	.0223
.419			
.550			

.600
 .697
 .0322
 -.0391

.725	-.0368
.750	-.0911

.836		
.832	- .0714	
.830		- .0878
		1.189

-.0000
-.1000
-.2000

CH	(1) =	2.498	ALPHA (2) =	-5.920	PTO

SECTION (1) ORBITER WING

Year	1990	1995	2000	2005	2010
8	.2990	.4270	.5340	.6750	.7100

λ/μ	-.0375	-.0257	-.0052
.050			
.400			

.419	.0019	
.550	.0222	
		-.0552

.697	.0316	
.700		-.0413

725	-	0000
750	-	0770
800	-	0000

.032	-.0010	
.050		-.0866
		-.1119

.300	
.950	
999	-.0313
	-.1106

100

AVES 67-710 1A12C 01 T1 94 LOWER WING PRESSURE (LB/2072)

MACH (1) = 2.496 ALPHA (3) = -3.930 PTO = 2318.333 PO = 136.333 R/FT = 2.941 Q = 594.778

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090			.0012		.0297
.400			-.0026		
.419		-.0273			
.950		.0215			-.0324
.900					
.697	.0749				
.700			-.0657		
.725					
.750		-.0163		-.0804	
.806		-.0730			
.632	-.0626				
.850			-.0671		
.900		-.0609		-.0995	
.950			-.1159		
.966	-.0344				

MACH (1) = 2.496 ALPHA (4) = -1.880 PTO = 2318.333 PO = 136.333 R/FT = 2.941 Q = 594.778

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090			.0564		.0660
.400			.0082		
.419		-.0257			
.950		.0049			-.0084
.900					
.697	.1191				
.700			-.0712		
.725					
.750		-.0032		-.0721	
.806		-.0666			
.632	-.0643				
.850			-.0663		
.900		-.0665		-.0677	
.950			-.1144		
.966	-.0447				



DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

MACH (1) = 2.498 ALPHA (5) = .120 PTO = 2318.333 PO = 136.333 R/PT = 2.941 Q = 594.778
 ASES 87-710 1A12C 01 T1 94 LOWER WING PRESSURE (LB/2072)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .0822 .1079
 .400 .0268
 .419 -.0166
 .550 -.0222 .0220
 .600
 .697 .1554
 .700
 .725 -.0595
 .750 .0075
 .750 -.0522
 .806
 .832 -.0824
 .850 -.0616
 .900 -.0903
 .950 -.1090
 .966 -.0456

MACH (1) = 2.498 ALPHA (6) = 2.160 PTO = 2318.333 PO = 136.333 R/PT = 2.941 Q = 594.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .1092 .1512
 .400 .0443
 .419 -.0104
 .550 -.0249 .0452
 .600
 .697 .1804
 .700
 .725 -.0359
 .750 .0245
 .750 -.0303
 .806
 .832 -.0768
 .850
 .900 -.0639
 .950 -.0727
 .966 -.0947
 .966 -.0340

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 2.498 ALPHA (7) = 4.130 PTO = 2318.333 PO = 136.333 R/PT = 2.941 Q = 594.778
 AMES 87-71C 1A12C 01 T1 SA LOWER WING PRESSURE (LB/QT2)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .1317 .2024
 .400 .0684
 .419 .0031
 .590 .0213 .0634
 .600
 .697 .1690
 .700
 .725 -.0034
 .750 .0314 .0035
 .806 -.0113
 .832 -.0862
 .850 -.0483
 .900 -.0137 -.0537
 .950 -.0699
 .966 -.0436

MACH (1) = 2.498 ALPHA (8) = 6.130 PTO = 2318.333 PO = 136.333 R/PT = 2.941 Q = 594.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .1733 .2382
 .400 .1024
 .419 .0416
 .590 .0664
 .600 .1241
 .697 .1792
 .700
 .725 .0562
 .750 .0660 .0466
 .806 .0275
 .832 -.0430
 .850 -.0331
 .900 .0295 -.0050
 .950 -.0174
 .966 -.0466



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 2.496 ALPHA (9) = 8.110 PTD = 2318.333 PO = 136.333 R/FT = 2.941 Q = 594.778
 (LB/FT²)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090				.1942		.3173
.400				.1340		
.419		.1020				
.550			.0683			.1652
.600						
.697	.1947					
.700				.0746		
.725			.1930			
.750					.1134	
.806		.0440				
.832	-.0331					
.850				.0177		.0285
.900			.0382			.0651
.950						
.966	-.0473					

DATE 05 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

AMES 87-710 (A12C ON T1 54 LOWER WING PRESSURE) (18 APR 74)

REFERENCE DATA

REF = 2690.0000 SQ.FT. WREF = 953.0000 IN.
 LREF = 1328.0000 IN. WREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 2.496 ALPHA (1) = -7.950 PTO = 2309.444 PO = 136.000 R/PT = 2.923 Q = 592.596

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .0491 -.0289
 .400 .0425
 .419 .0890 .0251
 .550 .0251
 .600 .0272
 .697 .0379
 .700 .0414
 .725 .0413
 .750 .0725
 .806 .0957
 .832 .0694
 .850 .0925
 .900 .1099
 .950 .1208
 .966 .1157

MACH (1) = 2.496 ALPHA (2) = -5.860 PTO = 2309.444 PO = 136.000 R/PT = 2.923 Q = 592.596

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .0396 -.0039
 .400 .0308
 .419 .0779 .0252
 .550 .0252
 .600 .0369
 .697 .0106
 .700 .0339
 .725 .0367
 .750 .0636
 .806 .0765
 .832 .0965
 .850 .0907
 .900 .0953
 .950 .1157
 .966 .1157



DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

WACH (1) = 2.493 ALPHA (3) = -3.660 PTD = 2309.444 PO = 136.000 R/PT = 2.923 Q = 592.556
 AWES 87-710 1A12C 01 T1 S4 LOWER WING PRESSURE (LB/2073)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7600	.8870
X/C						
.050				-.0048		.0305
.400				-.0153		
.419		.0326				
.550			.0386			
.600						-.0369
.697	.0201					
.700				-.0336		
.725			-.0256			
.750					-.0407	
.806		-.0170				
.832	-.0971			-.0450		
.850			-.0971		-.1030	
.900				-.1160		
.950						
.966	-.1539					

WACH (1) = 2.498 ALPHA (4) = -1.660 PTD = 2309.444 PO = 136.000 R/PT = 2.923 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7600	.8870
X/C						
.050				.0494		.0666
.400				.0073		
.419		-.0167				
.550			.0421			
.600						-.0127
.697	.0561					
.700				-.0466		
.725			-.0105			
.750					-.0719	
.806		-.0727				
.832	-.0630					
.850			-.0779			-.0695
.900			-.1005			
.950				-.1116		
.966	-.1526					

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 07-710 1A12C 01 T1 S4 LOWER WING PRESSURE (LB2073)

MACH (1) = 2.498 ALPHA (5) = .150 PTO = 2309.444 PO = 136.000 R/FT = 2.923 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .0706 .1095
 .400 .0239
 .419 -.0160
 .590 .0259 .0153
 .600
 .697 .1169
 .700 -.0561
 .725 .0052
 .750 -.0322
 .806 -.0846
 .832 -.0860
 .850 -.0867
 .900 -.0538 -.0748
 .950 -.1005
 .966 -.1530

MACH (1) = 2.498 ALPHA (6) = 2.140 PTO = 2309.444 PO = 136.000 R/FT = 2.923 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .0969 .1518
 .400 .0437
 .419 -.0144
 .590 .0146 .0399
 .600
 .697 .1324
 .700 -.0405
 .725 .0232
 .750 -.0326
 .806 -.0226
 .832 -.0611
 .850 -.0514
 .900 -.0805 -.0593
 .950 -.0646
 .966 -.1475



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 2.498 ALPHA (7) = 4.150 PTO = 2309.444 PO = 136.000 R/PT = 2.923 Q = 592.556
 (LB/FT²)

1A12C 01 T1 94 LOWER WING PRESSURE

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090	.1227	.2318
.400	.0656	
.419		
.590	-.0039	.0114
.600		.0765
.697	.1565	
.700		
.725		
.750		
.806		
.832	-.0233	
.850		
.900		
.950		
.966	-.1381	

MACH (1) = 2.498 ALPHA (8) = 6.160 PTO = 2309.444 PO = 136.000 R/PT = 2.923 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090	.1649	.2572
.400	.0975	
.419		
.590	.0311	.0650
.600		.1201
.697	.1809	
.700		
.725		
.750		
.806	.0196	.0390
.832	-.0469	
.850		
.900		
.950		
.966	-.1303	

DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-710 1A12C OF T1 S4 LOWER WING PRESSURE (LB/2073)

MACH (1) = 2.496 ALPHA (8) = 8.180 PTD = 2309.444 PO = 136.000 R/PT = 2.923 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.5340	.6750	.7800	.8870
X/C						
.050				.1916		.5167
.400				.1250		
.419		.0879				
.550			.0860			.1626
.600						
.697	.1867			.0755		
.700						
.725			.1985			
.750					.1156	
.806		.0366				
.632	-.0353			.0333		
.850			.0322		.0224	
.900				.0691		
.950						
.966	-.1205					



DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AVES 87-710 1A12C ON TI 34 LOWER WING PRESSURE (18 APR 74)

REFERENCE DATA

WREF = 2990.0000 50.FT. WREF = 953.0000 IN.
LREF = 1328.0000 IN. YREF = .0000 IN.
BREF = 1328.0000 IN. ZREF = 400.0000 IN.
SCALE = .0190 SCALE

BETA = .000 POWER = 1.000
CPR = 26.860 SMPR = .768
GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.002 ALPHA (1) = -7.930 PTO = 2307.111 PO = 62.667 R/PT = 2.235 Q = 394.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7600	.8870
X/C						
.080				.0200		.0571
.400				.0039		
.419		.0306				
.550			.0897			
.600						-.0108
.697	.0839					
.700				-.0116		
.723			.0185		-.0512	
.730						
.808		-.0311				
.832	-.0233			-.0497		
.850			-.0819		-.0555	
.900				-.0755		
.950						
.966	-.0131					

MACH (1) = 3.002 ALPHA (2) = -5.960 PTO = 2307.111 PO = 62.667 R/PT = 2.235 Q = 394.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7600	.8870
X/C						
.080				.0263		.0796
.400				.0191		
.419		.0276				
.550			.0304			
.600						-.0063
.697	.1307					
.700				-.0246		
.723			.0122		-.0508	
.730						
.808		-.0358				
.832	-.0214			-.0511		-.0329
.850			-.0393			
.900				-.0761		
.950						
.966	-.0116					

AMES 87-710 1A12C ON T1 94 LOWER WING PRESSURE (LB/274)

WACH (1) = 3.002 ALPHA (3) = -3.670 PTC = 2507.111 PO = 62.667 R/PT = 2.235 Q = 394.889

SECTION (1) ORBITON WING DEPENDENT VARIABLE CP

Y/B .8960 .4270 .5340 .6750 .7600 .8670

X/C

.080	.0304	.1046
.400	.0375	
.419	.0275	
.590	-.0014	
.670		.0101
.677	.1462	
.700		
.725		
.750	.0054	-.0414
.806	-.0359	
.832	-.0145	
.850		-.0827
.900	-.0568	-.0439
.950	-.0646	
.966	-.0062	

WACH (1) = 3.002 ALPHA (4) = -1.830 PTO = 2507.111 PO = 62.667 R/PT = 2.235 Q = 394.889

SECTION (1) ORBITON WING DEPENDENT VARIABLE CP

Y/B .8960 .4270 .5340 .6750 .7600 .8670

X/C

.080	.1024	.1293
.400	.0460	
.419	.0260	
.590	.0041	
.600		.0262
.697	.1302	
.700		
.725	-.0042	-.0269
.750		
.806	-.0304	-.0313
.832	-.0176	
.850		-.0820
.900	-.0591	-.0334
.950	-.0676	
.966	-.0136	



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

WACH (1) = 3.002 ALPHA (9) = .080 PTO = 2307.111 PO = 62.687 R/PT = 2.235 Q = 394.809
 ANES 87-710 1A12C 01 T1 94 LOWER WING PRESSURE (LB/274)

SECTION (1) 1081 IN WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.9340	.6730	.7600	.8870
X/C						
.090			.0934		.1566	
.400			.0711			
.419		.0518				
.590			.0095			
.600					.0301	
.697	.0907					
.700				-.0176		
.723			-.0064		-.0735	
.750						
.808		-.0266				
.832	-.0126			-.0344		
.850					-.0187	
.900		-.0648		-.0810		
.930						
.966	-.0074					

WACH (1) = 3.002 ALPHA (8) = 2.090 PTO = 2307.111 PO = 62.687 R/PT = 2.235 Q = 394.809

SECTION (1) 1081 IN WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.9340	.6730	.7600	.8870
X/C						
.090			.1049		.2042	
.400			.0731			
.419		.0292				
.590			.0056		.0662	
.600						
.697	.0644			-.0109		
.700			-.0053		-.0050	
.723						
.750						
.808		-.0266				
.832	-.0136			-.0542		
.850					-.0102	
.900		-.0760		-.0743		
.930						
.966	-.0014					

AMES 87-710 1A12C ON T1 S4 LOWER WING PRESSURE (LB/2074)

MACH (1) = 3.002 ALPHA (7) = 4.050 PTO = 2307.111 PO = 62.667 R/FT = 2.255 Q = 394.689

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090				.1244		.2414
.400				.0863		
.419		.0230				
.550			.0108			.0536
.600						
.697	.0732					
.700				.0044		
.725			.0022			
.750					.0169	
.808		-.0226				
.832	-.0146					
.850			-.0348			
.900		-.0563			.0037	
.950			-.0616			
.966	.0129					

MACH (1) = 3.002 ALPHA (8) = 6.140 PTO = 2307.111 PO = 62.667 R/FT = -.235 Q = 394.689

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090				.1518		.2890
.400				.1102		
.419		.0159				
.550			.0344			.1229
.600						
.697	.0684					
.700				.0309		
.725			.0119		.0415	
.750						
.808		-.0163				
.832	-.0145					
.850			-.0147			.0216
.900			-.0616		-.0536	
.950						
.966	.0059					



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

WACH (1) = 3.002 ALPHA (9) = 8.100 PTO = 2307.111 PO = 62.667 P/FY = 2.235 Q = 394.889
 AMES 87-710 1A12C 01 T1 S4 LOWER WING PRESSURE (LB/2074)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090			.1693	.3242
.400			.0954	
.419	.0447			
.550		.0765		.1508
.600				
.697	.0540		.0826	
.700				
.725		.0140		.0709
.750				
.808	-.0189			
.832	-.0017		.0012	.0382
.850				
.900		-.0667	-.0418	
.930				
.966	.0000			



DATE 03 DEC 74

TABULATED SOURCE DATA - 1.12C (WING PRESSURES)

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(LB2075) (16 APR 74)

AMES 87-710 1A12C ON T1 SA LOWER WING PRESSURE

REFERENCE DATA

SRF = 2690.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.002 ALPHA (1) = -7.910 PTO = 2312.333 PO = 63.000 R/PT = 2.239 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .0214 .0567
 .400 -.0042
 .419 .0966
 .590 .0662
 .600 -.0124
 .697 .0872
 .700 -.0053
 .725 .0096
 .750 -.0462
 .806 -.0276
 .832 -.0363
 .850 -.0491
 .900 -.0756
 .950 -.0740
 .966 -.1113

MACH (1) = 3.002 ALPHA (2) = -5.860 PTO = 2312.333 PO = 63.000 R/PT = 2.239 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .0240 .0788
 .400 .0048
 .419 .0494
 .590 .0566
 .600 -.0070
 .697 .0562
 .700 -.0106
 .725 .0079
 .750 -.0256
 .806 -.0361
 .832 -.0411
 .850 -.0497
 .900 -.0772
 .950 -.0762
 .966 -.1105



DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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A1E5 87-710 1A12C ON T1 S4 LOWER WING PRESSURE (LB2075)

MACH (1) = 3.002 ALPHA (3) = -3.840 PTD = 2312.333 PO = 63.000 R/F/T = 2.239 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090			.0265		.1038
.400			.0248		
.419		.0186			
.550			.0369		.0069
.600					
.697	.0724				
.700			-.0294		
.725		.0118			
.750				-.0476	
.806		-.0415			
.832	-.0400				
.850			-.0518		
.900		-.0704		-.0487	
.950			-.0765		
.966	-.1113				

MACH (1) = 3.002 ALPHA (4) = -1.850 PTD = 2312.333 PO = 63.000 R/F/T = 2.239 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090			.0984		.1266
.400			.0322		
.419		.0190			
.550			.0308		.0236
.600					
.697	.0687				
.700			-.0309		
.725		.0126			
.750				-.0412	
.806		-.0361			
.832	-.0300				
.850			-.0322		-.0401
.900		-.0690			
.950			-.0772		
.966	-.1077				

DATE 03 DEC 64

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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AVES 87-710 1A12C 01 T1 S4 LOWER WING PRESSURE

1870751

MACH (1) = 3.002 ALPHA (5) = .110 PTO = 2512.333 PO = 63.000 R/PT = 2.239 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090			.0889	.1594
.400			.0426	
.419	.0298			
.550		.0165		
.600				.0419
.697	.0905			
.700			-.0223	
.725		.0155		-.0265
.750				
.808	-.0253			
.832	-.0210		-.0540	
.850		-.0657		-.0269
.900			-.0729	
.950				
.966	-.1050			

MACH (1) = 3.002 ALPHA (6) = 2.120 PTO = 2512.333 PO = 63.000 R/PT = 2.239 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090			.0966	.2075
.400			.0462	
.419	.0230			
.550		.0037		.0629
.600				
.697	.1014			
.700			-.0115	
.725		.0241		-.0151
.750				
.808	-.0221			
.832	-.0803		-.0597	-.0151
.850		-.0600		
.900			-.0756	
.950				
.966	-.1041			



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12 (WING PRESSURES)

(LBZ075)

AVES 87-710 1A12 ON T1 5A LOWER WING PRESSURE

MACH (1) = 3.002 ALPHA (7) = 4.110 PTD = 2312.333 PO = 63.000 R/F7 = 2.239 0 = 398.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/E .2930 .4270 .5340 .6730 .7800 .8870

X/C	.090	.1174	.12414
.400	.0590		
.419	.0155		
.550	.0069		
.600			.0497
.697	.0078	.0055	
.700			
.725	.0266		.0005
.750			
.808	-.0196		
.832	-.0246	-.0458	-.0023
.850		-.0565	
.900		-.0613	
.950			
.966	-.1016		

MACH (1) = 3.002 ALPHA (8) = 6.130 PTD = 2312.333 PO = 63.000 R/F7 = 2.239 0 = 398.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/E .2990 .4270 .5340 .6730 .7800 .8870

X/C	.090	.1505	.2491
.400	.0789		
.419	.0119		
.550	.0298		.1199
.600			
.697	.1169	.0273	
.700			
.725	.0266		.0237
.750			
.808	-.0117		
.832	-.0203	-.0166	.0169
.850		-.0529	
.900		-.0472	
.950			
.966	-.0951		

DATE 15 DEC 74 TABULATED SOURCE DATA - TABULATING PRESSURES

(0.0073)

AVES 87-710 (AIRC C) : SA LOWER WING PRESSURE

MAC 1 = 3.002 ALPHA (9) = 8.110 P/Q = 2312.330 Q/Q = 43.000 P/R7 = 2.239 Q = 396.000

DEPENDENT VARIABLE

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090			.1689		.3443
.400			.0018		
.419	.0402				
.520		.0763			.1522
.600					
.697	.1096				
.700			.0540		
.725		.0176		.0461	
.750					
.806	-.0087				
.822	-.0082				
.850			.0099		.0361
.900		-.0597			
.950			-.0340		
.966	-.0933				



AVES 87-710 1A12C Q1 T1 S4 LOWER WING PRESSURE (0.92076) (16 APR 74)

REFERENCE DATA

W/F = 2600.0000 SQ.FT. WAP = 953.0000 IN.
 W/V = 1326.0000 IN. WAP = 1.0000 IN.
 W/F = 1728.0000 IN. WAP = 476.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CPR = 23.880 SMPR = .828
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.499 ALPHA (1) = -7.600 PTO = 2304.300 PC = 30.000 R/P/T = 1.736 Q = 259.500

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .0403 .0896
 .400 .0213
 .419 .0610
 .550 .0468
 .600 .0191
 .697 .2103
 .700 -.0053
 .725 .0599
 .750 -.0281
 .808 .0010
 .832 .0261
 .890 -.0254
 .900 -.0184
 .950 -.0449
 .966 -.0102
 .0611

MACH (1) = 3.499 ALPHA (2) = -5.800 PTO = 2304.300 PC = 30.000 R/P/T = 1.736 Q = 259.500

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .0906 .1042
 .400 .0339
 .419 .0617
 .550 .0359
 .600 .0234
 .697 .1580
 .700 -.0006
 .725 .0381
 .750 -.0247
 .808 -.0005
 .832 .0316
 .890 -.0312
 .900 -.0263
 .950 -.0427
 .966 -.0102
 .0611

DATE 03 DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

AVES 87-710 1A12C ON T1 SA LOVED WING PRESSURE (0.82078)

WACH (1) = 3.453 ALPHA (3) = -3.17 PTO = 2304.300 PC = 50.000 R/PT = 1.736 Q = 249.500

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090			.0313		.1120	
.400			.0676			
.419		.0623				
.550			.0340			.0340
.600						
.697	.0669			.0083		
.700						
.725			.7242			
.750					-.0147	
.806		-.0019				
.832	.0416			-.0293		
.850			-.0288		.0004	
.900				-.0564		
.950						
.966	.0677					

WACH (1) = 3.499 ALPHA (4) = -1.800 PTO = 2304.300 PC = 50.000 R/PT = 1.736 Q = 259.500

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090			.0667		.1326	
.400			.0756			
.419		.0675				
.550			.0407			.0500
.600						
.697	.0662			.0109		
.700						
.725			.0287			
.750					-.0059	
.806		.0117				
.832	.0693			-.0263		.0113
.850			-.0299		-.0556	
.900						
.950						
.966	.0660					

AMES 87-710 14120 OF T1 94 LOWER WING PRESSURE (LB/IN²)

MACH (1) = 3.499 ALPHA (2) = .200 PTD = 2304.300 PO = 30.000 R/FT = 1.736 Q = 259.500

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

X Z .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .050
 .400
 .419
 .550
 .600
 .697
 .700
 .725
 .750
 .806
 .832
 .850
 .900
 .990
 .966
 .0832
 .0994
 .0713
 .0495
 .0561
 .0202
 .0332
 .0141
 .0843
 -.0275
 -.0205
 -.0476
 .1645
 .0759
 .0121
 .0278

MACH (1) = 3.499 ALPHA (6) = 2.190 PTD = 2304.300 PO = 30.000 R/FT = 1.736 Q = 259.500

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

X Z .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .050
 .400
 .419
 .550
 .600
 .697
 .700
 .725
 .750
 .806
 .832
 .850
 .900
 .990
 .966
 .1396
 .1015
 .0704
 .0540
 .0448
 .0252
 .0343
 .0075
 .0530
 -.0157
 -.027
 -.0446
 .2386
 .0801
 .0207
 .0289

DATE 08 DEC 74

TABULATED SOURCE DATA - (A12C01 G PRESSURE)

PAGE 404

MACH (1) = 3.499 ALPHA (1) = 4.160 PTO = 2304.300 PO = 30.000 R/PT = 1.736 Q = 259.500
 AVE CP-PTO (A12C01 G 1 SA LOWER WING PRESSURE) (L9C576)

SECTION 1 (1) 1/8 INCH WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8670

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

X/C .050 .1622 .2721 .0593 .0362 .1010

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURES

PAGE 404

AFS 87-710 1A12C OF TI 5A LOWER WING PRESSURE (LB/2077) (16 APR 74)

REFERENCE DATA

SWEP = 26.000000 51.571 WAPP = 993.0000 IN.
 LREF = 1324.0770 IN. WAPP = .0000 IN.
 BREF = 1226.0000 IN. WAPP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ETA = .000 POWER = .000
 CAL = 1.000 RUDER = .000

MACH (1) = 3.495 ALPHA (1) = -7.721 PTO = 2312.556 PO = 30.000 PFT = 1.749 Q = 260.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8870

X/C

.090 .0401 .0876
 .400 .0092
 .419 .0915
 .590 .0496
 .600 .0179
 .697 .1244
 .700 .0036
 .725 .0553
 .750 .0008
 .806 -.0008
 .832 -.0249
 .890 -.0477
 .900 -.0130
 .970 -.0499
 .966 -.0732

MACH (1) = 3.496 ALPHA (2) = -9.780 PTO = 2312.556 PO = 30.000 PFT = 1.749 Q = 260.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8870

X/C

.090 .0520 .1076
 .400 .0166
 .419 .0375
 .590 .0493
 .600 .0235
 .697 .1811
 .700 -.0076
 .725 .0327
 .750 -.0336
 .806 -.0046
 .832 -.0051
 .890 -.0282
 .900 -.0472
 .970 -.0466
 .966 -.0739



DATE 05 DEC 74 TABULATED SOURCE DATA - (A12C Q1 T1 SA LOWER WING PRESSURE)

RLR7077

MACH (1) = 3.499 ALPHA (5) = .250 PTO = 2312.556 PO = 30.000 R/FT = 1.749 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C	.050	.1650
.050	.0811	.1650
.100	.0459	
.150		
.200	.0434	
.250	.0274	.0665
.300		
.350	.1346	
.400	.697	
.450	.700	.0059
.500	.725	.0334
.550	.750	
.600	.806	-.0120
.650	.832	
.700	.850	-.0003
.750	.900	-.0326
.800	.950	-.0476
.850	.966	-.0537
.900		
.950		
.966		

MACH (1) = 3.499 ALPHA (6) = 2.260 PTO = 2312.556 PO = 30.000 R/FT = 1.749 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C	.050	.1353	.2425
.050	.1353	.2425	
.100	.0461		
.150			
.200	.0378	.0296	.0795
.250			
.300	.1112		
.350	.700	-.0001	
.400	.725	.0324	
.450	.750		-.0096
.500	.806	.0050	
.550	.832		
.600	.850	-.0347	.0205
.650	.900	-.0486	
.700	.950	-.0559	
.750	.966		
.800			
.850			
.900			
.950			
.966			



DATE 08 DEC 74

TAB LATED SOURCE DATA - TAI2C WING PRESSURES

PAGE 409

MACH (1) = 3.499 ALPHA (1) = 4.240 PTD = 2312.956 PO = 30.000 R/FT = 1.749 Q = 260.000

(LB/2077)

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.1590	.2721
.400	.0504	
.419		
.550	.0303	
.600	.0183	.0992
.697	.0919	
.700		
.725	.0314	
.750		
.806	.0004	-.0038
.832	-.0040	
.850		
.900	-.0466	-.0325
.950		-.0536
.966	-.0199	.0298

MACH (1) = 3.499 ALPHA (8) = 6.270 PTD = 2312.956 PO = 30.000 R/FT = 1.749 Q = 260.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.1457	.3120
.400	.0579	
.419		
.550	.0134	
.600	.0259	
.697	.0738	.1300
.700		
.725	.0509	
.750		
.806	.0086	.0205
.832	-.0087	
.850		
.900	-.0062	
.950		
.966	-.0418	-.0228
	-.0396	.0498

DATE 05 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

(LB/2077)

AVES 37-710 (A12C) AT 54 LOWER WING PRESSURE

WACH 11 = 3.499 ALPHA (9) = 8.300 PTO = 2312.558 PO = 30.000 R.F.T = 1.749 Q = 200.000

SECTION 11 ORBITER WING DEPENDENT VARIABLE OF

Y/B .2990 .4270 .5340 .6730 .7300 .8570

X/C

.050			.1620		.3726
.400			.0811		
.419	.0438				
.550		.0542			.1673
.600					
.697	.0673		.0320		
.700					
.725		.0411			
.750				.0536	
.806	-.0160				
.832					
.850	-.0160		.0043		.0720
.900		-.0526			
.950			-.0201		
.966	-.0699				



AVES 07-710 1A120 CB T1 S1 LOWER WING PRESSURE 0.870781 (10 APR 74)

REFERENCE DATA

SIZE = 2690.0000 IN. FT. XMP = 953.0000 IN.
 WPP = 1328.0000 IN. WPP = 1.0000 IN.
 ZMP = 1328.0000 IN. ZMP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 QPR = 31.260 SMPR = .916
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 2.458 ALPHA (1) = 7.930 PTO = 2313.100 PO = 135.800 R/FT = 2.989 Q = 593.800

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090				-.0476		-.0252
.400				-.0337		
.419		.0475				
.550			.0299			
.600						-.0685
.697	.0316					
.700				-.0353		
.725			-.0345			
.750					-.0879	
.806			-.0695			
.832	-.0561					
.850			-.0839			
.900		-.0820			-.1175	
.950			-.1009			
.966	-.0241					

MACH (1) = 2.496 ALPHA (2) = -5.850 PTO = 2313.100 PO = 135.800 R/FT = 2.989 Q = 593.800

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090				-.0393		-.0029
.400				-.0244		
.419		.0126				
.550			.0247			
.600						-.0538
.697	.0308					
.700			-.0379			
.725			-.0288			
.750						-.0862
.806		-.0728				
.832	-.0791					
.850			-.0555			
.900		-.0613				-.1101
.950						
.966						

DATE 05 DEC '74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-710 1A12C (3) 31 LOWER WING PRESSURE (LB/2075)

MAC (1) = 2.498 ALPHA (3) = -3.850 P/D = 2313.100 PO = 135.800 R/PT = 2.989 Q = 593.200

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6750 .7800 .8870

X/C					
.050			.0000		.0228
.400			-.0007		
.419		-.0245			
.550			.0304		-.0304
.600					
.697	.0827				
.730			-.0340		
.725		-.0171			
.750				-.0803	
.808		-.0713			
.832	-.0617				
.850			-.0614		
.900		-.0706		-.0977	
.950			-.1105		
.966	-.0286				

MAC (1) = 2.498 ALPHA (4) = -1.880 P/D = 2313.100 PO = 135.800 R/PT = 2.989 Q = 593.200

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6750 .7800 .8870

X/C					
.050			.0527		.0685
.400			.0121		
.419		-.0258			
.550			.0104		-.0045
.600					
.697	.1156				
.700			-.0662		
.725		-.0018		-.0682	
.750					
.808		-.0626			
.832	-.0601				
.850			-.0600		-.0842
.900		-.0736		-.1095	
.950					
.966	-.0356				



DATE 05 FEB 74 THEORETICAL SOURCE (X, Y) = (1.12, 0.00) (WING PRESSURES)

WING PLANFORM (X, Y) = (1.12, 0.00) (WING PRESSURE) (LB/2078)

MACH (1) = 2.498 ALPHA (5) = .150 PTO = 2313.100 PO = 133.800 R/FT = 2.989 Q = 593.200

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C					
.090			.0781		.1103
.400			.0297		
.419		-.0153			
.550		-.0201			.0238
.600					
.697	.1570				
.700		-.0554			
.725		.0108			
.750			-.0503		
.806	-.0584				
.832	-.0827				
.850		-.0778			-.0713
.900		-.0819			
.950		-.1056			
.966	-.0414				

MACH (1) = 2.498 ALPHA (6) = 2.110 PTO = 2313.100 PO = 133.800 R/FT = 2.989 Q = 593.200

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C					
.090			.1041		.1534
.400			.0457		
.419		-.0062			
.550		-.0237			.0464
.600					
.697	.1635				
.700		-.0350			
.725		.0276			
.750			-.0279		
.806	-.0468				
.832	-.0795				
.850		-.0659			-.0550
.900		-.0699			
.950		-.0920			
.966	-.0349				

DATA: 13 DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

(LB/FT²)

WING AREA 87.710 (AIRCRAFT ST. LOWER WING PRESSURE)

= 593.870

Q

= 2.989

R/FT

= 135.800

PO

= 2313.100

P/TO

= 6.140

ALPHA (°)

= 2.498

WACH (1)

= 2.498

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .1294 .2032
 .400 .0696
 .419 .0016
 .550 .0150 .0625
 .600
 .697 .1701
 .700
 .725
 .750 .0339 .0048
 .806
 .832 -.0073
 .850
 .900
 .950
 .966 -.0544
 .980
 .990
 .995
 .998
 .999

-.0345

-.0849

= 593.800

Q

= 2.989

R/FT

= 135.800

PO

= 2313.100

P/TO

= 6.140

ALPHA (°)

= 2.498

WACH (1)

= 2.498

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .1674 .2377
 .400 .1031
 .419 .0392
 .550 .0664
 .600
 .697 .1694
 .700
 .725 .1012
 .750 .0442
 .806 .0692
 .832 -.0444
 .850
 .900
 .950
 .966 -.0568
 .980
 .990
 .995
 .998
 .999

-.0315

-.0336

-.0033

-.0045

-.0045

-.0045



DATE 08 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

MACH (1) = 2.420 ALPHA (9) = 8.150 PTQ = 2313.100 PQ = 135.800 R/F = 2.989 Q = 993.800
 WES 87-210 (A12C Q3 T1 S1 LOWER WING PRESSURE (LB/2076))

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/C	.2532	.4270	.5340	.6730	.7800	.8870
X/C						
.050				.1920		.3197
.400				.1348		
.419						
.550		.1040				
.600			.0701			.1656
.697						
.700	.1993			.0774		
.725			.2047			
.750					.1169	
.806		.0466				
.832	-.0297					
.850				.0335		.0288
.900			.0408		.0725	
.950						
.966	-.0508					

TABLED SOURCE DATA - TABLES OF ASSURANCE

[illegible]

PARAMETRIC DATA

REFERENCE DATA		PARAMETRIC DATA	
SPR	= 600,000 SQ.FT.	WPR	= 955,0000 IN.
LRP	= 120,0000 IN.	WRP	= 1000 IN.
ZPR	= 120,0000 IN.	ZWR	= 400,0000 IN.
SCALE	= 1000 SCALE		

$$= 392,667$$
[illegible]

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Variable	Mean	Standard deviation	Skewness	Kurtosis
1. Age	35.42	10.59	0.0213	0.5891
2. Sex	0.400	0.490	0.0030	
3. Education	14.19	2.41	0.0449	
4. Income	3.350	2.644		
5. Health	6.000	1.000		-0.0117
6. Employment	6.917	0.809	-0.0070	
7. Social capital	7.725	0.189		-0.0490
8. Social support	7.750	0.750		
9. Life satisfaction	8.06	0.0308		
10. Depression	1.832	0.0273		
11. Anxiety	1.850	0.0468		
12. Stress	1.900	-0.0809		-0.0541
13. Quality of life	9.950	-0.0731		
14. Health-related quality of life	9.966	-0.0179		

[illegible]

INDEPENDENT VARIABLE	DEPENDENT VARIABLE CP
1. Age	0.0000
2. Sex	0.0000
3. Education	0.0000
4. Income	0.0000
5. Health	0.0000
6. Religion	0.0000
7. Marital Status	0.0000
8. Employment	0.0000
9. Social Class	0.0000
10. Political Party	0.0000
11. Ethnicity	0.0000
12. Religion	0.0000
13. Marital Status	0.0000
14. Employment	0.0000
15. Social Class	0.0000
16. Political Party	0.0000
17. Ethnicity	0.0000
18. Religion	0.0000
19. Marital Status	0.0000
20. Employment	0.0000
21. Social Class	0.0000
22. Political Party	0.0000
23. Ethnicity	0.0000
24. Religion	0.0000
25. Marital Status	0.0000
26. Employment	0.0000
27. Social Class	0.0000
28. Political Party	0.0000
29. Ethnicity	0.0000
30. Religion	0.0000
31. Marital Status	0.0000
32. Employment	0.0000
33. Social Class	0.0000
34. Political Party	0.0000
35. Ethnicity	0.0000
36. Religion	0.0000
37. Marital Status	0.0000
38. Employment	0.0000
39. Social Class	0.0000
40. Political Party	0.0000
41. Ethnicity	0.0000
42. Religion	0.0000
43. Marital Status	0.0000
44. Employment	0.0000
45. Social Class	0.0000
46. Political Party	0.0000
47. Ethnicity	0.0000
48. Religion	0.0000
49. Marital Status	0.0000
50. Employment	0.0000
51. Social Class	0.0000
52. Political Party	0.0000
53. Ethnicity	0.0000
54. Religion	0.0000
55. Marital Status	0.0000
56. Employment	0.0000
57. Social Class	0.0000
58. Political Party	0.0000
59. Ethnicity	0.0000
60. Religion	0.0000
61. Marital Status	0.0000
62. Employment	0.0000
63. Social Class	0.0000
64. Political Party	0.0000
65. Ethnicity	0.0000
66. Religion	0.0000
67. Marital Status	0.0000
68. Employment	0.0000
69. Social Class	0.0000
70. Political Party	0.0000
71. Ethnicity	0.0000
72. Religion	0.0000
73. Marital Status	0.0000
74. Employment	0.0000
75. Social Class	0.0000
76. Political Party	0.0000
77. Ethnicity	0.0000
78. Religion	0.0000
79. Marital Status	0.0000
80. Employment	0.0000
81. Social Class	0.0000
82. Political Party	0.0000
83. Ethnicity	0.0000
84. Religion	0.0000
85. Marital Status	0.0000
86. Employment	0.0000
87. Social Class	0.0000
88. Political Party	0.0000
89. Ethnicity	0.0000
90. Religion	0.0000
91. Marital Status	0.0000
92. Employment	0.0000
93. Social Class	0.0000
94. Political Party	0.0000
95. Ethnicity	0.0000
96. Religion	0.0000
97. Marital Status	0.0000
98. Employment	0.0000
99. Social Class	0.0000
100. Political Party	0.0000
101. Ethnicity	0.0000
102. Religion	0.0000
103. Marital Status	0.0000
104. Employment	0.0000
105. Social Class	0.0000
106. Political Party	0.0000
107. Ethnicity	0.0000
108. Religion	0.0000
109. Marital Status	0.0000
110. Employment	0.0000
111. Social Class	0.0000
112. Political Party	0.0000
113. Ethnicity	0.0000
114. Religion	0.0000
115. Marital Status	0.0000
116. Employment	0.0000
117. Social Class	0.0000
118. Political Party	0.0000
119. Ethnicity	0.0000
120. Religion	0.0000
121. Marital Status	0.0000
122. Employment	0.0000
123. Social Class	0.0000
124. Political Party	0.0000
125. Ethnicity	0.0000
126. Religion	0.0000
127. Marital Status	0.0000
128. Employment	0.0000
129. Social Class	0.0000
130. Political Party	0.0000
131. Ethnicity	0.0000
132. Religion	0.0000
133. Marital Status	0.0000
134. Employment	0.0000
135. Social Class	0.0000

	9000	42 m	.5740	.6750	.7800	.8870
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C	0.090	0.0270	0.0828
.400		.0168	
.419			
.550	.0279		
.600		.0369	
.697			-.0049
.700	.1162		
.725		-.0229	
.750		.0131	
.806			-.0498
.832	-.0371		
.850	-.0238		
.900		-.0502	
.950		-.0602	-.0512
998		-.0749	
999	-.0147		



WACH (1) = 3.003 ALPHA (4) = -1.890 PTO = 2295.778 PO = 62.000 R/FT = 2.247 Q = 392.667

WACH (1) = 3.003 ALPHA (4) = -1.890 PTO = 2295.778 PO = 62.000 R/FT = 2.247 Q = 392.667

WACH (1) = 3.003 ALPHA (4) = -1.890 PTO = 2295.778 PO = 62.000 R/FT = 2.247 Q = 392.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .0294 .1089
 .400 .0397
 .419 .0268
 .590 .0002
 .600 .0128
 .697 .1464
 .700 -.0263
 .725 .0098
 .750 -.0385
 .796 -.0355
 .832 -.0164
 .850 -.0582
 .900 -.0586
 .950 -.0799
 .966 -.0400

WACH (1) = 3.003 ALPHA (4) = -1.890 PTO = 2295.778 PO = 62.000 R/FT = 2.247 Q = 392.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .1015 .1306
 .400 .0480
 .419 .0295
 .590 .0042
 .600 .0304
 .697 .1372
 .700 -.0244
 .725 -.0012
 .750 -.0280
 .796 -.0279
 .832 -.0156
 .850 -.0603
 .900 -.0585
 .950 -.0847
 .966 -.0127

WING (1) = 3.003 ALPHA (0) = 0.120 PTO = 2295.778 PO = 62.000 R/PY = 2.247 Q = 392.667

WING (1) = 3.003 ALPHA (0) = 0.120 PTO = 2295.778 PO = 62.000 R/PY = 2.247 Q = 392.667

WING (1) = 3.003 ALPHA (0) = 0.120 PTO = 2295.778 PO = 62.000 R/PY = 2.247 Q = 392.667

SECTION (1) ORIFICE WING DEPENDENT VARIABLE CP

Y/C	PTO	PO	R/PY	Q
0.90	.1246	.2428		
1.00	.1246	.2428		
1.10	.1246	.2428		
1.20	.1246	.2428		
1.30	.1246	.2428		
1.40	.1246	.2428		
1.50	.1246	.2428		
1.60	.1246	.2428		
1.70	.1246	.2428		
1.80	.1246	.2428		
1.90	.1246	.2428		
2.00	.1246	.2428		
2.10	.1246	.2428		
2.20	.1246	.2428		
2.30	.1246	.2428		
2.40	.1246	.2428		
2.50	.1246	.2428		
2.60	.1246	.2428		
2.70	.1246	.2428		
2.80	.1246	.2428		
2.90	.1246	.2428		
3.00	.1246	.2428		

SECTION (1) ORIFICE WING DEPENDENT VARIABLE CP

Y/C	PTO	PO	R/PY	Q
0.90	.1548	.2904		
1.00	.1548	.2904		
1.10	.1548	.2904		
1.20	.1548	.2904		
1.30	.1548	.2904		
1.40	.1548	.2904		
1.50	.1548	.2904		
1.60	.1548	.2904		
1.70	.1548	.2904		
1.80	.1548	.2904		
1.90	.1548	.2904		
2.00	.1548	.2904		
2.10	.1548	.2904		
2.20	.1548	.2904		
2.30	.1548	.2904		
2.40	.1548	.2904		
2.50	.1548	.2904		
2.60	.1548	.2904		
2.70	.1548	.2904		
2.80	.1548	.2904		
2.90	.1548	.2904		
3.00	.1548	.2904		

TABLED SOURCE DATA - UNCORRECTED PRESSURES

0.320781

= 592.60

ALPHA (9) = 5.120 0.00 299.77 PC = 2.000 0.00 = 2.247 0

SECTION (1) CORRECTED WING

1/2 .2990 .4270 .5340 .6750 .7510 .8070

1/4

.090			.179		.3449
.400			.0929		
.419		.0410			
.540		.747			.1543
.600					
.697	.0021		.0467		
.700				.0698	
.729		.0129			
.750					
.806	-.0160				
.832	.0047		.0029		.0406
.870					
.900		-.0063			
.950		-.0392			
.966	.0042				



WING SPOT DATA - 1000 TO 11 01 LOWER WING PRESSURE (LBZ080) (16 APR 74)

INTERPOLATE DATA

WING = 2850.0000 SQ FT. WING = 943.0000 IN.
 CHORD = 1320.0000 IN. WING = 1000.0000 IN.
 WING = 1320.0000 IN. WING = 400.0000 IN.
 SCALE = 0.00 SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CFI = 23.860 STAFF = .806
 GIMBAL = 1.000 RUDDER = .000

WING (1) = 3.450 ALPHA (1) = -7.740 PTO = 2297.222 PO = 30.000 R/FY = 1.754 Q = 258.667

SECTION (1) 1000 WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .0449 .0903
 .400 .0238
 .419 .0373
 .550 .0532
 .600 .0216
 .697 .2190
 .700 .0003
 .725 .0803
 .750 .0000
 .806 .0000
 .832 .0000
 .850 .0000
 .860 .0000
 .890 .0000
 .950 .0000
 .966 .0000

WING (2) = 3.450 ALPHA (2) = -3.770 PTO = 2297.222 PO = 30.000 R/FY = 1.754 Q = 258.667

SECTION (2) 1100 WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .0311 .1056
 .400 .0315
 .419 .0963
 .550 .0363
 .600 .0228
 .697 .1111
 .700 .0017
 .725 .0436
 .750 .0000
 .806 .0000
 .832 .0000
 .850 .0000
 .860 .0000
 .890 .0000
 .950 .0000
 .966 .0000

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C UPPER PRESS (3)

PAGE 22

(LB 2080)

AVES 87-710 1A12C CE TH SL LOWER WING PRESSURE

MACH (1) = 3.498 ALPHA (3) = -3.730 PTO = 2297.222 PO = 30.000 R/PT = 1.754 Q = 258.667

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090			.0303		.1135
.400			.0542		
.419		.0636			
.550			.0330		.0351
.600					
.697	.1085				
.700			.0047		
.725		.0281			
.750				-.0149	
.806	-.0031				
.832	.0292				
.850			-.0296		.0019
.900		-.0296			
.950			-.0552		
.966	.0652				

MACH (1) = 3.498 ALPHA (4) = -1.750 PTO = 2297.222 PO = 30.000 R/PT = 1.754 Q = 258.667

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090			.0873		.1335
.400			.0713		
.419		.0812			
.550			.0336		.0901
.600					
.697	.0668				
.700			.0137		
.725		.0256			
.750				-.0060	
.806	-.0078				
.832	.0334				
.850			-.0261		.0109
.900		-.0359			
.950			-.0551		
.966	.0530				



DATE 04-25-74 FACULTY SOURCE DATA - 14120 (WING PRESSURES)

(0.07080)

14120 (0.07080) 14120 (0.07080) 14120 (0.07080)

WACH (1) = 3.498 ALPHA (3) = .255 PTO = 2297.222 PO = 30.000 R/FT = 1.754 Q = 258.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8970

X/C

.050	.0613	.1646
.400	.0900	
.419	.0672	
.550	.0437	.0676
.600		
.697	.0492	
.700		.0202
.725	.0278	
.750		.0136
.806	.0004	
.832	.0536	
.850		-.0218
.900	-.0381	.0234
.950		-.0480
.966	.0442	

WACH (1) = 3.498 ALPHA (6) = .910 PTO = 2297.222 PO = 30.000 R/FT = 1.754 Q = 258.667

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8970

X/C

.050	.1364	.2414
.400	.0895	
.419	.0623	
.550	.0420	.0806
.600		
.697	.0399	
.700		.0240
.725	.0311	.0185
.750		
.806	-.0075	
.832	.0421	
.850		-.0174
.900	-.0381	.0250
.950		-.0447
.966	.0470	

DATE 23 DEC 71 TABULATED SOURCE DATA - (A12C ONLY PRESSURES)

MACH (1) = 3.498 ALPHA (7) = 4.253 PTO = 4297.222 PO = 30.000 R/PT = 1.754 Q = 25.487
 A-ES RT-71C (A12C OF 11 31 LOWER WING PRESSURE) (LB/INCH)

SECTION 11 ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.2990	.4270	.5540	.6810	.7805	.8870
.050					.1562		.2779
.400					.0763		
.419		.0533					
.550			.0281				.1034
.600							
.697	.0326				.0249		
.700			.0297			.0226	
.725							
.750							
.806	-.0043						
.832	.0397				-.0177		.0357
.850			-.0385				
.900					-.0353		
.950							
.966	.0456						

MACH (1) = 3.498 ALPHA (8) = 6.810 PTO = 4297.222 PO = 30.000 R/PT = 1.754 Q = 25.487

SECTION 11 ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.2990	.4270	.5540	.6750	.7800	.8870
.050					.1491		.3171
.400					.0834		
.419		.0416					
.550			.0409				.1562
.600							
.697	.0301				.0907		
.700			.0443			.0491	
.725							
.750							
.806	.0236						
.832	.0401				.0063		.0376
.850			-.0226				
.900					-.0166		
.950							
.966	.0532						



DATE 25 JUL 74

TABULATED SOURCE DATA - 1A18 (WING PRESSURES)

PAGE 429

(LB/2060)

AVES 87-710 1A12C 05 T1 51 LOWER WING PRESSURE

WAC- (1) 4 3.453 ALPHA (9) = 8.240 PTO = 2297.222 PO = 30.000 P/S = 1.754 Q = 258.667

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/Z	.2900	.4270	.5740	.6730	.7600	.8870
X/C						
.030				.1541		.3701
.400				.1269		
.419						
.550		.0543				
.600			.0780			.1663
.697	.0447					
.700				.0811		
.725			.0380			
.750					.1169	
.804		.0850				
.832	.0665					
.850				.0114		.0805
.900		.0046				
.950				-.0274		
.966	.0506					

TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

(LB/2081) (15 APR 74)

DATE 06 DEC 74

AVES 87-710 1A12108 11 51 LOWER WING PRESSURE

PARAMETRIC DATA

REF = 2650.0000 SQ.FT. XREF = 353.0000 IN.
 LREF = 1328.0000 IN. YREF = 100.0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE
 MACH (1) = 3.498 ALPHA (1) = -7.413 PTO = 2291.000 PO = 30.000 R/PT = 1.749 Q = 258.111
 SECTION (1) ORBITER WING
 Y/B .2990 .4270 .5340 .6730 .7800 .8870
 X/C .090 .0908
 .400 .0154
 .419 .0524
 .550 .0575
 .600 .0207
 .697 .2048
 .700 .0071
 .725 .0600
 .750 .0292
 .806 .0022
 .832 .0037
 .850 .0239
 .900 .0233
 .900 .0439
 .966 .0137
 .966 .0102

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C .090 .0908

.400 .0154

.419 .0524

.550 .0575

.600 .0207

.697 .2048

.700 .0071

.725 .0600

.750 .0292

.806 .0022

.832 .0037

.850 .0239

.900 .0233

.900 .0439

.966 .0137

.966 .0102

DEPENDENT VARIABLE CP

MACH (1) = 3.498 ALPHA (2) = -5.760 PTO = 2291.000 PO = 30.000 R/PT = 1.749 Q = 258.111

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C .090 .0908

.400 .0154

.419 .0524

.550 .0575

.600 .0207

.697 .2048

.700 .0071

.725 .0600

.750 .0292

.806 .0022

.832 .0037

.850 .0239

.900 .0233

.900 .0439

.966 .0137

.966 .0102



DATE 01-11-77 (CALCULATED SOURCE DATA - AIRCRAFT WING PRESSURES)

MACH (1) = 3.455 ALPHA (4) = -3.770 PTO = 2291.000 PO = 30.000 R/PY = 1.749 Q = 258.111
 AXES: X=0.000 Y=0.000 Z=0.000 (0.52081)

SECTION 1 (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7800	.8870
X/C						
.050						
.400			.0291			.1094
.419		.0327		.0460		
.550			.0284			
.600						.0319
.697	.1295					
.700				.0012		
.725			.0286			
.750						
.806						
.832						
.850						
.900						
.950						
.966						

MACH (1) = 3.498 ALPHA (4) = -1.770 PTO = 2291.000 PO = 30.000 R/PY = 1.749 Q = 258.111
 SECTION 1 (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7800	.8870
X/C						
.050						
.400			.0655			.1332
.419		.0546		.0641		
.550			.0305			
.600						.0464
.697	.0720					
.700				.0086		
.725			.0200			
.750						
.806						
.832						
.850						
.900						
.950						
.966						

DATE OF USE : TAG-LATED SOURCE DATA - (A12C WITH PRESSURES)

1826

PAGES 07-710 016-48 53M 1A12C IS A LOWER WING PRESSURE

MAC (1) = 3.459	ALPHA (5) = 265	PTG = 2291.000	PG = 30.000	RPT = 1.749	Q = 258.111
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0-21371-V-1130-003

प्रतिपक्षः प्रत्यक्षः

19	295	4275	5340	6735	7077	5670
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.050	.0229	.1937
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.419 .5592

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500

458 .0444

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512

750 750

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932 - 0034

2000

\$69	- \$79.94	\$1.88
\$1.32		

[illegible]

1000

32

$\alpha_{CH}(1) = 3.494$	$\alpha_{PHA}(8) = 2.240$	$PTO = 2291,000$	$PO = 30,000$	$R/\bar{F} = 1.749$	$Q = 250.111$
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DEPENDENT VARIABLE CPD

SECTION (1) ORBITER WING

y/8	.2990	.4270	.5340	.6730	.7800	.8870
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	1960	1970	1980
... ..	.050	.1310	.2409

400 .0817

419	0970
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.097

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0236

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.000

- .0249

200 544 2206

100

DEC. 1930

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DATE 05 DEC 74 TABULATED SOURCE DATA 1A12C WING PRESSURES

ALES 87-710 1A12C 02 13 S1 LOWER WING PRESSURE 0.920811

MACH 1.1 = 3.459 ALPHA (8) = 8.250 PWD = 2201.000 PG = 30.000 P/PT = 1.749 Q = 258.111

SECTION 110081 EP WING DEPENDENT VARIABLE CP

X/C .2990 .4210 .5341 .6110 .7800 .8870

X/C	CP
.050	.1632
.100	.0511
.150	.0421
.200	.0701
.250	.0344
.300	.0985
.350	.0344
.400	.0824
.450	-.0068
.500	.0802
.550	.0802
.600	-.0441
.650	-.0229
.700	.0737
.750	
.800	
.850	
.900	
.950	
.998	.0136



WING PLANFORM COORDINATES

WING PLANFORM COORDINATES

15-0000 (10 APR 74)

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CTR = 31.260 SCALP = .916
 C146AL = 1.000 PUDDER = 1.000

WING PLANFORM COORDINATES
 WING PLANFORM COORDINATES
 WING PLANFORM COORDINATES
 WING PLANFORM COORDINATES

WING PLANFORM COORDINATES

SECTION 1 (1) ORIENTED WING

WING PLANFORM COORDINATES

WING PLANFORM COORDINATES

WING PLANFORM COORDINATES

SECTION 1 (1) ORIENTED WING

WING PLANFORM COORDINATES

WING PLANFORM COORDINATES

TABLED SOURCE DATA - 1/20 WING PROFILES

0.0000

WING PROFILE 1/20 WING PROFILES

WING 2.498 ALPHA (3) = -3.000 PTO = 2305.125 PO = 135.025 R/PT = 2.985 Q = 591.900

DEPENDENT VARIABLE CP

SECTION 1/20 WING
Y/B .0000 .4270 .5340 .6730 .7800 .8870

X/C
.050 .0223 .0330
.400 -.0042
.415
.419
.490 .0329
.600
.697 .0381
.700
.725
.750
.806
.832
.850
.900
.950
.966

0.0000

WING (1) = 2.498 ALPHA (4) = -1.890 PTO = 2305.125 PO = 135.025 R/PT = 2.985 Q = 591.900

DEPENDENT VARIABLE CP

SECTION 1/20 WING
Y/B .0000 .4270 .5340 .6730 .7800 .8870

X/C
.050 .0514 .0693
.400 .0118
.415
.419
.490 .0106
.600
.697 .1048
.700
.725
.750
.806
.832
.850
.900
.950
.966

0.0000



WATER 1000 2.491 ALPHA (1) = 4.711 DM = 1.0001128 PD = 134.611 R/PY = 2.388

2.50021

WATER 1000 2.491 ALPHA (1) = 4.711 DM = 1.0001128 PD = 134.611 R/PY = 2.388

DEPENDENT VARIABLE Q

SECTION (1) 1000101 WING

Y/B .2990 .4270 .5340 .6750 .7300 .8870

X/C .090 .400 .415 .590 .697 .725 .750 .858 .892 .900 .950 .966

.0021 .0148 .0233 .0002 .0046 .0000 .0000 .0000 .0000 .0000 .0000 .0000

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WACH (1) = 2.496 ALPHA (8) = 6.140 PTO = 2505.125 PD = 135.625 R/PY = 2.985 Q = 591.500

DEPENDENT VARIABLE CP

SECTION (1) 1000101 WING

Y/B .2990 .4270 .5340 .6750 .7300 .8870

X/C .090 .400 .415 .590 .697 .725 .750 .858 .892 .900 .950 .966

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AVE: 87-710 1A12C ON 7 SL 117 WING PRESSES (182083)

MACH (1) = 3.002 ALPHA (3) = -5.920 PTO = 2308.889 PO = 62.778 R/PT = 2.263 Q = 395.111

SECTION (1) ORBITER WING DEPENDENT VARIABLES CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .0271 .0774
 .400 .0258 .0361
 .419 .0003 .0114
 .550 .0062 .0396
 .600 .0062 .0396
 .697 .0062 .0396
 .700 .0062 .0396
 .725 .0062 .0396
 .750 .0062 .0396
 .806 .0062 .0396
 .832 .0062 .0396
 .850 .0062 .0396
 .900 .0062 .0396
 .950 .0062 .0396
 .966 .0062 .0396

MACH (1) = 3.002 ALPHA (4) = -1.920 PTO = 2308.889 PO = 62.778 R/PT = 2.263 Q = 395.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .1028 .1335
 .400 .0505
 .419 .0294 .0047 .0317
 .550 .0047 .0317
 .600 .0047 .0317
 .697 .1341 .0239
 .700 .0057 .0264
 .725 .0057 .0264
 .750 .0057 .0264
 .806 .0057 .0264
 .832 .0057 .0264
 .850 .0057 .0264
 .900 .0057 .0264
 .950 .0057 .0264
 .966 .0057 .0264



COMPUTED DATA - CALCULATED PRESSURES

WING AREA = 10.0000 SQ. FT. = 2.263 Q = 395.111

MACH (1) = 3.002 ALPHA (1) = 2.080 PTO = 2308.889 PO = 82.778 R/PT = 2.263 Q = 395.111

SECTION (1) ORBITER WING

DEPENDENT VARIABLE TO

X/C

.050	.0978	.1625
.400	.0765	
.419		
.550	.0327	
.600	.0102	.0513
.697		
.700		
.725		
.750		
.806		
.832		
.840		
.900		
.950		
.966		

MACH (1) = 3.002 ALPHA (1) = 2.080 PTO = 2308.889 PO = 82.778 R/PT = 2.263 Q = 395.111

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

X/C

.050	.1064	.2090
.400	.0765	
.419		
.550	.0308	
.600	.0066	.0701
.697		
.700		
.725		
.750		
.806		
.832		
.840		
.900		
.950		
.966		

DATE 10-1-74 TABULATED SOURCE DATA - TAI2C (1) PIF SOURCE

(0.97003)

AVES 87-710 TAI2C 04 T1 51 LOW WING PRESSURE

MACH (1) = 3.002 ALPHA (1) = 4.250 PTO = 2308.889 PO = 52.77° R/FT = 2.263 Q = 395.111

DEPENDENT VARIABLE CP

SECTION (1) 1/2811111 WING

Y/B .2990 .4270 .5340 .6730 .7800 .8670

X/C

.050 .1239 .2170
 .400 .0592
 .419 .0203 .0094 .0066
 .550 .0008 .0197
 .600 .0066
 .697 .0008
 .700 .0008
 .725 .0008
 .750 .0008
 .806 .0008
 .832 .0008
 .850 .0008
 .900 .0008
 .950 .0008
 .966 .0008

MACH (1) = 3.002 ALPHA (1) = 4.250 PTO = 2308.889 PO = 52.77° R/FT = 2.263 Q = 395.111

DEPENDENT VARIABLE CP

SECTION (1) 1/2811111 WING

Y/B .2990 .4270 .5340 .6730 .7800 .8670

X/C

.050 .1542 .2691
 .400 .1099
 .419 .0132 .0319 .1229
 .550 .0002 .0435
 .600 .0002
 .697 .0002
 .700 .0002
 .725 .0002
 .750 .0002
 .806 .0002
 .832 .0002
 .850 .0002
 .900 .0002
 .950 .0002
 .966 .0002



CONFIDENTIAL IS IN PD 761001 314-46 5301

Account	Debit	Credit	Balance
101 Cash			
102 Accounts Receivable			
103 Inventory			
104 Prepaid Insurance			
105 Equipment			
106 Accumulated Depreciation			
201 Accounts Payable			
202 Wages Payable			
203 Income Tax Payable			
204 Retained Earnings			
301 Sales			
302 Cost of Sales			
303 Selling Expenses			
304 Administrative Expenses			
305 Interest Expense			
306 Dividends			
401 Income Statement			
402 Balance Sheet			
403 Statement of Retained Earnings			
404 Statement of Cash Flows			
405 Statement of Financial Position			
406 Statement of Income			
407 Statement of Cash Flows			
408 Statement of Financial Position			
409 Statement of Income			
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2017-05-23

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DATE 01 DEC 74

TABULATED SOURCE DATA - 1A12C (AIR PRESSURE)

PAGE 440

AVES 87.710 1A12C ON 1 ST LOWER WING PRESSURE

CRITICAL 110 APR 74 1

REFERENCE DATA

SRCP = 2680.700 31.1 FT. XREF = 543.0000 IN.
 LREF = 1226.0000 IN. XREF = .0000 IN.
 BRCP = 1226.0000 IN. XREF = 400.0000 IN.
 SCALE = 10150 SCALE

PARAMETRIC DATA

WING = 1.000 POWER = 1.000
 SPAN = 20.000 SPMR = .876
 BUDDEN = 1.000 BUDDEN = .000

MACH (1) = 3.499 ALPHA (1) = -7.790 PTO = 2905.375 PO = 30.000 R/PT = 1.761 Q = 259.830

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6750 .7800 .8870

X/C

.090			.0431		.099
.400			.0244		
.419		.0596			
.550			.0487		.0257
.600					
.697	.2082				
.700			-.0080		
.725			.0601		-.0271
.750		.0034			
.808					
.832	.0176				
.850			-.0259		-.0103
.900		-.0238			
.950			-.0472		
.966	.0301				

MACH (1) = 3.499 ALPHA (2) = -9.170 PTO = 2905.375 PO = 30.000 R/PT = 1.761 Q = 259.830

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6750 .7800 .8870

X/C

.090			.0530		.1068
.400			.0323		
.419		.0814			
.550			.0363		.0269
.600					
.697	.1653				
.700			-.0008		
.725		.0412			-.0237
.750					
.808		.0008			
.832	.0216				
.850			-.0302		-.0038
.900		-.0296			
.950			-.0536		
.966	.0265				



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

WING (1) = 3.499 ALPHA (6) = 2.020 PTO = 2305.375 PO = 30.000 R/FT = 1.761 Q = 259.250
 ANES 87-710 1A12C ON 11 01 LOWER WING PRESSURE (CR5000)

SECTION 1108BITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.2990	.4270	.5340	.6730	.7600	.8870
.090					.1559		.2425
.400					.0820		
.419			.0827				
.950				.0408			.5814
.600							
.697	.0392						
.700				.0221			
.725				.0299			.0161
.750							
.806			-.0126				
.832	.0223						
.850				-.0192			.0259
.900			-.0432				
.930				-.0454			
.966	.0321						

WING (1) = 3.499 ALPHA (6) = 4.250 PTO = 2305.375 PO = 30.000 R/FT = 1.761 Q = 259.250

SECTION 1108BITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.2990	.4270	.5340	.6730	.7600	.8870
.090					.1587		.2757
.400					.0753		
.419			.0526				
.950				.0296			.1046
.600							
.697	.0291						
.700				.0251			
.725			.0307			.0207	
.750							
.806			-.0104				
.832	.0264						
.850				-.0156			.0354
.900			-.0392				
.930				-.0366			
.966	.0301						

TABULATED SOURCE DATA - 1100 BITER WING (SUSSES)

ANALYSIS OF 1100 BITER WING PRESSURE

REFERENCE DATA

WING = 200.0000 SQ. FT. WING AREA = 200.0000
 LIFT = 150.0000 LB. WING AREA = 200.0000
 PRESS = 132.0000 IN. WING AREA = 200.0000
 SCALE = 1.0000

PARAMETRIC DATA

WING AREA = 200.0000
 WING AREA = 200.0000
 WING AREA = 200.0000

MACH (1) = 3.000 ALPHA (1) = 0.000 PTC = 2313.286 PC = 63.000 R/PT = 2.346 Q = 396.000

SECTION 1100 BITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7500 .8870

X/C

.090 .084 .1086
 .400 .0241
 .419 .0232
 .550 .0425
 .600 .0125
 .697 .0715
 .700 .0228
 .725 .0171
 .750 .0171
 .806 -.0362
 .832 -.0344
 .850 -.0446
 .900 -.0666
 .950 -.0606
 .966 -.1070

MACH (1) = 3.000 ALPHA (2) = -1.890 PTC = 2313.286 PC = 63.000 R/PT = 2.346 Q = 396.000

SECTION 1100 BITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7500 .8870

X/C

.090 .1030 .1322
 .400 .0360
 .419 .0257
 .550 .0429
 .600 .0289
 .697 .0972
 .700 -.0231
 .725 .0164
 .750 .0164
 .806 -.0333
 .832 -.0279
 .850 -.0445
 .900 -.0630
 .950 -.0697
 .966 -.1016



TABULATED SOURCE DATA (1) 1/2 IN. WING PRESSURE

(0.0000)

WING AREA = 1.1200 IN. \times 1.1200 IN. WING PRESSURE

WING AREA = 1.1200 IN. \times 1.1200 IN. WING PRESSURE

WING AREA = 1.1200 IN. \times 1.1200 IN. WING PRESSURE

WING AREA = 1.1200 IN. \times 1.1200 IN. WING PRESSURE

WING AREA = 1.1200 IN. \times 1.1200 IN. WING PRESSURE

WING AREA = 1.1200 IN. \times 1.1200 IN. WING PRESSURE

X/C

.090
.400
.419
.550
.600
.697
.700
.725
.750
.806
.832
.890
.900
.930
.946

.1257
.0651
.0207
.0134
.0143
.0240
.0104
-.0165
-.0125
-.0494
-.0359
-.0505
.0061

.2457
.0044
.0000
.0000
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WING AREA = 1.1200 IN. \times 1.1200 IN. WING PRESSURE

WING AREA = 1.1200 IN. \times 1.1200 IN. WING PRESSURE

WING AREA = 1.1200 IN. \times 1.1200 IN. WING PRESSURE

WING AREA = 1.1200 IN. \times 1.1200 IN. WING PRESSURE

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WING AREA = 1.1200 IN. \times 1.1200 IN. WING PRESSURE

WING AREA = 1.1200 IN. \times 1.1200 IN. WING PRESSURE

X/C

.090
.400
.419
.550
.600
.697
.700
.725
.750
.806
.832
.890
.900
.930
.946

.1575
.0852
.0176
.0333
.0343
.0359
.0071
-.0121
-.0446
-.0423
.0240

.2936
.1259
.0004
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TABULATED SOURCE DATA - TABULATED MEASURES

DATE 05 DEC 74

AMES 87-710 TABULATED MEASURES

PARAMETRIC DATA

REF = 2.000000E+000
 REF = 1.000000E+000
 REF = 1.000000E+000
 REF = 1.000000E+000

REFERENCE DATA

REF = 2.000000E+000
 REF = 1.000000E+000
 REF = 1.000000E+000
 REF = 1.000000E+000

MACH (1) = 3.002 ALPHA (1) = 0.000 PTO = 2297.444 PO = 60 RPT = 2.267 0 = 393.444

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7600 .8670

X/C
 .040
 .400
 .419
 .590
 .600
 .697
 .700
 .725
 .750
 .758
 .832
 .850
 .900
 .950
 .966

MACH (1) = 3.002 ALPHA (2) = -5.960 PTO = 2297.444 PO = 60 RPT = 2.267 0 = 393.444

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7600 .8670

X/C
 .090
 .400
 .419
 .590
 .600
 .697
 .700
 .725
 .750
 .758
 .832
 .850
 .900
 .950
 .966



DATE 03 DEC 74 TABULATED SOURCE DATA (TA12C ORBIT PRESSURES)

(LB2008)

AXES 8X-710 TA12C ON T1 S1 LOWER WING PRESSURE

MACH (1) = 3.072 ALPHA (5) = .040 PTO = 2297.444 PO = 62.333 R/PT = 2.267 Q = 393.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .1056 .1629
 .400 .0730
 .419 .0340
 .590 .0135 .0554
 .600
 .697 .0675
 .700
 .725
 .750
 .806
 .832 -.0301
 .850 -.0088
 .850 -.0477
 .900 -.0603
 .920 -.0764
 .966 .0078
 .966 -.0127
 .966 -.0145

MACH (1) = 3.002 ALPHA (6) = 2.030 PTO = 2297.444 PO = 62.333 R/PT = 2.267 Q = 393.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.350 .1071 .2063
 .400 .0763
 .419 .0342
 .590 .0091 .0727
 .600
 .697 .0666
 .700
 .725
 .750
 .806
 .832 -.0279
 .850 -.0124
 .850 -.0508
 .900 -.0615
 .920 -.0709
 .966 .0037
 .966 -.0002
 .966 -.0032



TABLE 1. SOURCE DATA - TABLE 1 (PRESSURES)

WING (1) = 3.072 ALPHA (1) = 4.020 PTO = 2297.444 PO = 62.333 R/PT = 2.267 Q = 593.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/C	.2590	.4170	.5340	.6730	.7800	.8870
1/2						
.050				.1273		.2407
.400				.0890		
.419		.0274				
.550			.0170			.0961
.600						
.657	.0809					
.720				.0063		
.725		.0051			.0170	
.806						
.832	-.0110	-.0233				
.850						
.900		-.0567		-.0291		.0098
.950				-.0600		
.966	.0177					

WING (1) = 3.002 ALPHA (1) = 6.30 PTO = 2297.444 PO = 62.333 R/PT = 2.267 Q = 593.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/C	.2790	.4270	.5340	.6730	.7800	.8870
1/2						
.050						
.400				.1534		.2861
.419				.1116		
.550		.0230				
.600			.0435			.1233
.657	.0597					
.720				.0323		
.725		.0133				
.806					.0430	
.832	-.0078	-.0132				
.850						
.900				-.0152		.0251
.950		-.0584				
.966	.0141			-.0520		

DATE 03 DEC 74 TABULATED SOURCE DATA - 11120 MW (WING PRESSURES)

(0.0000)

AMES 87-710 11120 MW 71 ST LOWER WING PRESSURE

MACH (1) = 0.002 ALPHA (9) = 0.040 P/PT = 0.2267 P/PT = 0.2267 P/PT = 0.2267

SECTION (1) ORB LATER WING DEPENDENT VARIABLE =

Y/B .2990 .4270 .5540 .6710 .7900 .8870

X/C

.050					
.400			.1759		.3470
.413			.1111		
.550	.0501				
.600		.0803			.1332
.697	.0480				
.700			.0865		
.725		.0170		.0911	
.750					
.806		-.0145			
.832	.0107				
.850			.0548		
.900		-.0100			.0421
.950					-.0376
.966	.0095				



DATE 03 SEP 74 TABULATED SOURCE DATA - (A120 WING PRESSURES)

AVES 87-710 A120 01 1 SI LOWER WING PRESSURE

2.82089

MACH (1) = 3.499 ALPHA (3) = -3.740 PC = 2510.222 PC = 30.000 R/F T = 1.776 Q = 290.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.030 .0364 .1080
 .400 .0315
 .419 .0370 .0282
 .550 .0348
 .600
 .697 .1585
 .750 .0437
 .750 .0052
 .808 .0248
 .832 -.0068
 .850 -.0045
 .850 -.0341
 .900 -.0444
 .950 -.0520
 .966 -.0731

MACH (1) = 3.499 ALPHA (4) = -1.720 PTD = 2310.222 PC = 30.000 R/F T = 1.776 Q = 290.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.030 .0364 .1351
 .400 .0413
 .419 .0386
 .550 .0239
 .600 .0483
 .697 .1433
 .700 .0026
 .723 .0364
 .750 .0200
 .808 -.0068
 .832 -.0011
 .850 -.0357
 .900 -.0466
 .950 -.0536
 .966 -.0715



WING PLAN AREA = 1.439 ALPHA = 0.000 PTD = 2310.222 PO = 30.000 P/T = 1.776 Q = 860.000
(LB/2089)

WING PLAN AREA = 1.439 ALPHA = 0.000 PTD = 2310.222 PO = 30.000 P/T = 1.776 Q = 860.000

SECTION 1: 110 PERCENT WING

DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6790	.7800	.8870
X/C						
.050				.0828		.1642
.400				.0470		
.419		.0434				
.550			.0271			
.600						.0687
.697	.1353					
.700			.0064			
.725			.0336			
.750						
.806		-.0007			-.0125	
.932	.0009			-.0337		
.950		-.0483			.0173	
.950				-.0537		
.966	-.0699					

WING PLAN AREA = 1.439 ALPHA (6) = 2.250 PTD = 2310.222 PO = 30.000 P/T = 1.776 Q = 860.000

SECTION 1: 110 PERCENT WING

DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6790	.7800	.8870
X/C						
.050				.1366		.2417
.400				.0506		
.419		.0341				
.550			.0285			
.600						.0786
.697	.1131					
.700			.0016			
.725			.0292			
.750					-.0129	
.806		.0015				
.932	-.0013					
.950			-.0336			.0217
.950		-.0466			-.0537	
.966	-.0693					

TABLED SOURCE DATA - (CALCULATED PRESSURES)

SECTION 1: GATE W/ 3
 P1 = 3.459 ALPHA (1) = 4.000 P2 = 2310.222 P3 = 30.000 R/F1 = 1.776 3 = 880.000

DEPENDENT VARIABLE CP

X/C	CP	X/C	CP	X/C	CP
.050	.1143	.100	.1074	.150	.1015
.100	.1011	.200	.1012	.250	.1016
.300	.1012	.350	.1016	.400	.1016
.400	.1016	.450	.1016	.500	.1016
.500	.1016	.550	.1016	.600	.1016
.600	.1016	.650	.1016	.700	.1016
.700	.1016	.750	.1016	.800	.1016
.800	.1016	.850	.1016	.900	.1016
.900	.1016	.950	.1016	.966	.1016

SECTION 1: GATE W/ 3
 P1 = 3.459 ALPHA (1) = 4.000 P2 = 2310.222 P3 = 30.000 R/F1 = 1.776 3 = 880.000

DEPENDENT VARIABLE CP

X/C	CP	X/C	CP	X/C	CP
.050	.1143	.100	.1074	.150	.1015
.100	.1011	.200	.1012	.250	.1016
.300	.1012	.350	.1016	.400	.1016
.400	.1016	.450	.1016	.500	.1016
.500	.1016	.550	.1016	.600	.1016
.600	.1016	.650	.1016	.700	.1016
.700	.1016	.750	.1016	.800	.1016
.800	.1016	.850	.1016	.900	.1016
.900	.1016	.950	.1016	.966	.1016



[illegible]

2

DEFINITION VARIABLE CP

22

•

28

ANES 87-210 14120 (WING - 14120 JES) LOWER WING PRESSURE

14120 (WING - 14120 JES)

REFERENCE DATA

REF = 2690.000 50.000 WING = 91.000 1.000 1.000
 REF = 1324.000 50.000 WING = 91.000 1.000 1.000
 REF = 1324.000 50.000 WING = 91.000 1.000 1.000
 SCALE = 10.000 50.000

PARAMETRIC DATA

WING = 91.000 1.000 1.000
 WING = 91.000 1.000 1.000
 WING = 91.000 1.000 1.000

WING (1) = 3.499 ALPHA (1) = -0.000 PO = 3.000 R/PY = 1.765 Q = 255.869

SECTION (1) ORBITER WING

DEPENDENT VARIABLE

Y/P .2990 .4270 .5340 .6730 .7800 .8870

X/C

.080 .0410 .0224
 .400 .0004
 .419 .0616 .0455
 .590 .0000
 .600 .1947
 .697 .0044
 .700 .0536
 .725 .0019
 .750 .0019
 .806 .0019
 .832 .0019
 .850 .0019
 .900 .0019
 .950 .0019
 .966 .0019

WING (1) = 3.499 ALPHA (2) = -5.830 PTO = 2501.000 PO = 30.000 R/PY = 1.765 Q = 255.869

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/P .2990 .4270 .5340 .6730 .7800 .8870

X/C

.080 .0498 .1097
 .400 .0384
 .419 .0628 .0399
 .590 .0252
 .600 .1376
 .697 .0019
 .700 .0356
 .725 .0019
 .750 .0019
 .806 .0004
 .832 .0427
 .850 .0019
 .900 .0019
 .950 .0019
 .966 .0019



MACH (1) = 3.499 ALPHA (1) = 0.000 PTO = 2301.000 PO = 30.000 R/FY = 1.765 Q = 253.689
 ANGLE OF ATTACK (1) = 0.000

0.000001

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2950 .4270 .5340 .6730 .7800 .8870

X/C

.050 .0293 .1114
 .400 .0409
 .419 .0637 .0331
 .550 .0358
 .600 .0114
 .697 .0232
 .700 .0132
 .725 .0284
 .750 .0037
 .808 -.0551
 .832 -.0132
 .850
 .900
 .950
 .966 .0648

MACH (1) = 3.499 ALPHA (4) = -1.840 PTO = 2301.000 PO = 30.000 R/FY = 1.765 Q = 253.689

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2950 .4270 .5340 .6730 .7800 .8870

X/C

.050 .0463 .1355
 .400 .0732
 .419 .0668 .0400
 .550 .0514
 .600 .0114
 .697 .0258
 .700 .0024
 .725 .0114
 .750 .0290
 .808 -.0317
 .832 .0135
 .850
 .900
 .950
 .966 .0602

TAB LAMT SOURCE DATA - 1120 WING PRESSURE

1120 WING PRESSURE DATA - 1120 WING PRESSURE

1120 WING PRESSURE DATA - 1120 WING PRESSURE

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1120 WING PRESSURE DATA - 1120 WING PRESSURE

1120 WING PRESSURE DATA - 1120 WING PRESSURE

TABULATED SOURCE DATA - (12 POINT PRESSURES)

WING PLANFORM 11120 01 1 31 LOWER WING PRESSURE

0.00000

MACH (1) = 2.499 ALPHA (3) = -1.820 PTO = 2315.667 PC = 136.000 R/PT = 2.944 Q = 10.000

SECTION (1) LOWER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 -.0184 .0179
 .400 .0174 .0444
 .419
 .550 .0188
 .597 .0321
 .750 .0752
 .806
 .832 -.0976
 .850
 .900 -.0934
 .950 -.1164
 .966 -.1761

MACH (1) = 2.499 ALPHA (4) = -1.820 PTO = 2315.667 PC = 136.000 R/PT = 2.944 Q = 594.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .0452 .0680
 .400 .0787
 .419
 .550 .0514
 .597 .0693
 .700 .0500
 .725 .0106
 .750 .0724
 .806
 .832 -.0931
 .850 .0761
 .900 .0920
 .950 .1096
 .966 .1747



DATA (1) = 2.499 ALPHA (1) = 2.160

15.7983)

EQ. (1) = 2.499 ALPHA (1) = 2.160

DATA (1) = 2.499 ALPHA (1) = 2.160

SECTION (1) = 2.499 ALPHA (1) = 2.160

DATA (1) = 2.499 ALPHA (1) = 2.160

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DATA (1) = 2.499 ALPHA (1) = 2.160

DATA (1) = 2.499 ALPHA (1) = 2.160

DATA (1) = 2.499 ALPHA (1) = 2.160

DATA OF CASE 77 TWO LATER SURFACE DATA - TABLE 1 (continued)

ALPHA = 2.499 ALPHA (P) = 4.140 PTC = 2319.687 PO = 136.000 R/PT = 2.944 Q = 594.000

0.0093

ALPHA = 2.499 ALPHA (P) = 4.140 PTC = 2319.687 PO = 136.000 R/PT = 2.944 Q = 594.000

SECTION 1 (1) ORBITER WING

CLUSE CENT WING VALUE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .1176
.400 .1693
.419 -.0054
.550 .0277
.600 .0749
.697 .1504
.700 -.0630
.725 .0433
.750 -.0500
.832 -.0875
.850 -.0418
.900 -.0223
.950 -.0772
.966 -.1492

ALPHA (1) = 2.499 ALPHA (8) = 6.130 PTC = 2319.687 PO = 136.000 R/PT = 2.944 Q = 594.000

DEPENDENT VARIABLE CP

SECTION 1 (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .1599
.400 .0994
.419 .0268
.550 .0848
.600 .1179
.697 .1788
.700 .0537
.725 .1055
.750 .0385
.806 .0194
.832 -.0475
.850 -.0323
.900 .0247
.950 -.0002
.966 -.1434



DATE OF TEST: 12/15/54 TESTED: 12/15/54 PAGE 467

WIND TUNNEL: 12.455 WIND TUNNEL: 12.455 WIND TUNNEL: 12.455

WIND TUNNEL: 12.455 WIND TUNNEL: 12.455 WIND TUNNEL: 12.455

SECTION (1) CENTER WING			
Y/C	X/C	DEPENDENT VARIABLE CP	
.050	.050	.1901	.3203
.400	.400	.1245	
.415	.415	.0672	
.550	.550	.0591	
.600	.600		.1637
.650	.650		
.700	.700	.0770	
.725	.725	.2017	
.750	.750		.1164
.806	.806	.0375	
.832	.832	-.0367	
.850	.850		.0426
.900	.900	.0338	.0212
.950	.950		.0744
.966	.966	-.1384	

12/15/54

SECRET

APPENDIX DATA

[illegible]

2913
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C
H
C

CONFIDENTIAL

W. E. Dink

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3560

3

-1191

040

DEPENDENT VARIABLE

00807 . 8870

- 0058

2000

-0573

2680'

- 118 -

DATA 03 SEC 74 TABULATED SOURCE DATA (TABULATED PRESSURES)

WACH (1) = 2.499 ALPHA (6) = 2.020 PTO = 2507.000 PO = 135.222 R/PT = 2.915 3 591.333
 ANES 87-700 (1) 10 71 51 LOWER WING PRESSURE (LB/IN²)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	CP
.2990	.4270	.0750
.1530	.0663	.0223
.0908	-.0602	-.0535
.0832	-.0868	-.0733
.0850	-.1143	
.0866	-.0346	

WACH (1) = 2.499 ALPHA (6) = 2.020 PTO = 2507.000 PO = 135.222 R/PT = 2.915 3 591.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	CP
.2990	.4270	.0750
.1574	.0643	.0449
.0908	-.0602	-.0320
.0832	-.0868	-.0733
.0850	-.1143	
.0866	-.0346	



[illegible]

ad 3167, 3168, 3169, 3170, 3171, 3172, 3173, 3174, 3175, 3176, 3177, 3178, 3179, 3180, 3181, 3182, 3183, 3184, 3185, 3186, 3187, 3188, 3189, 3190, 3191, 3192, 3193, 3194, 3195, 3196, 3197, 3198, 3199, 3200, 3201, 3202, 3203, 3204, 3205, 3206, 3207, 3208, 3209, 3210, 3211, 3212, 3213, 3214, 3215, 3216, 3217, 3218, 3219, 3220, 3221, 3222, 3223, 3224, 3225, 3226, 3227, 3228, 3229, 3230, 3231, 3232, 3233, 3234, 3235, 3236, 3237, 3238, 3239, 3240, 3241, 3242, 3243, 3244, 3245, 3246, 3247, 3248, 3249, 3250, 3251, 3252, 3253, 3254, 3255, 3256, 3257, 3258, 3259, 3260, 3261, 3262, 3263, 3264, 3265, 3266, 3267, 3268, 3269, 3270, 3271, 3272, 3273, 3274, 3275, 3276, 3277, 3278, 3279, 3280, 3281, 3282, 3283, 3284, 3285, 3286, 3287, 3288, 3289, 3290, 3291, 3292, 3293, 3294, 3295, 3296, 3297, 3298, 3299, 3300, 3301, 3302, 3303, 3304, 3305, 3306, 3307, 3308, 3309, 3310, 3311, 3312, 3313, 3314, 3315, 3316, 3317, 3318, 3319, 3320, 3321, 3322, 3323, 3324, 3325, 3326, 3327, 3328, 3329, 3330, 3331, 3332, 3333, 3334, 3335, 3336, 3337, 3338, 3339, 3340, 3341, 3342, 3343, 3344, 3345, 3346, 3347, 3348, 3349, 3350, 3351, 3352, 3353, 3354, 3355, 3356, 3357, 3358, 3359, 3360, 3361, 3362, 3363, 3364, 3365, 3366, 3367, 3368, 3369, 3370, 3371, 3372, 3373, 3374, 3375, 3376, 3377, 3378, 3379, 3380, 3381, 3382, 3383, 3384, 3385, 3386, 3387, 3388, 3389, 3390, 3391, 3392, 3393, 3394, 3395, 3396, 3397, 3398, 3399, 3400, 3401, 3402, 3403, 3404, 3405, 3406, 3407, 3408, 3409, 3410, 3411, 3412, 3413, 3414, 3415, 3416, 3417, 3418, 3419, 3420, 3421, 3422, 3423, 3424, 3425, 3426, 3427, 3428, 3429, 3430, 3431, 3432, 3433, 3434, 3435, 3436, 3437, 3438, 3439, 3440, 3441, 3442, 3443, 3444, 3445, 3446, 3447, 3448, 3449, 3450, 3451, 3452, 3453, 3454, 3455, 3456, 3457, 3458, 3459, 3460, 3461, 3462, 3463, 3464, 3465, 3466, 3467, 3468, 3469, 3470, 3471, 3472, 3473, 3474, 3475, 3476, 3477, 3478, 3479, 3480, 3481, 3482, 3483, 3484, 3485, 3486, 3487, 3488, 3489, 3490, 3491, 3492, 3493, 3494, 3495, 3496, 3497, 3498, 3499, 3500, 3501, 3502, 3503, 3504, 3505, 3506, 3507, 3508, 3509, 3510, 3511, 3512, 3513, 3514, 3515, 3516, 3517, 3518, 3519, 3520, 3521, 3522, 3523, 3524, 3525, 3526, 3527, 3528, 3529, 3530, 3531, 3532, 3533, 3534, 3535, 3536, 3537, 3538, 3539, 3540, 3541, 3542, 3543, 3544, 3545, 3546, 3547, 3548, 3549, 3550, 3551, 3552, 3553, 3554, 3555, 3556, 3557, 3558, 3559, 3560, 3561, 3562, 3563, 3564, 3565, 3566, 3567, 3568, 3569, 3570, 3571, 3572, 3573, 3574, 3575, 3576, 3577, 3578, 3579, 3580, 3581, 3582, 3583, 3584, 3585, 3586, 3587, 3588, 3589, 3590, 3591, 3592, 3593, 3594, 3595, 3596, 3597, 3598, 3599, 3600, 3601, 3602, 3603, 3604, 3605, 3606, 3607, 3608, 3609, 3610, 3611, 3612, 3613, 3614, 3615, 3616, 3617, 3618, 3619, 3620, 3621, 3622, 3623, 3624, 3625, 3626, 3627, 3628, 3629, 3630, 3631, 3632, 3633, 3634, 3635, 3636, 3637, 3638, 3639, 3640, 3641, 3642, 3643, 3644, 3645, 3646, 3647, 3648, 3649, 3650, 3651, 3652, 3653, 3654, 3655, 3656, 3657, 3658, 3659, 3660, 3661, 3662, 3663, 3664, 3665, 3666, 3667, 3668, 3669, 3670, 3671, 3672, 3673, 3674, 3675, 3676, 3677, 3678, 3679, 3680, 3681, 3682, 3683, 3684, 3685, 3686, 3687, 3688, 3689, 3690, 3691, 3692, 3693, 3694, 3695, 3696, 3697, 3698, 3699, 3700, 3701, 3702, 3703, 3704, 3705, 3706, 3707, 3708, 3709, 3710, 3711, 3712, 3713, 3714, 3715, 3716, 3717, 3718, 3719, 3720, 3721, 3722, 3723, 3724, 3725, 3726, 3727, 3728, 3729, 3730, 3731, 3732, 3733, 3734, 3735, 3736, 3737, 3738, 3739, 3740, 3741, 3742, 3743, 3744, 3745, 3746, 3747, 3748, 3749, 3750, 3751, 3752, 3753, 3754, 3755, 3756, 3757, 3758, 3759, 3760, 3761, 3762, 3763, 3764, 3765, 3766, 3767, 3768, 3769, 3770, 3771, 3772, 3773, 3774, 3775, 3776, 3777, 3778, 3779, 3780, 3781, 3782, 3783, 3784, 3785, 3786, 3787, 3788, 3789, 3790, 3791, 3792, 3793, 3794, 3795, 3796, 3797, 3798, 3799, 3800, 3801, 3802, 3803, 3804, 3805, 3806, 3807, 3808, 3809, 3810, 3811, 3812, 3813, 3814, 3815, 3816, 3817, 3818, 3819, 3820, 3821, 3822, 3823, 3824, 3825, 3826, 3827, 3828, 3829, 3830, 3831, 3832, 3833, 3834, 3835, 3836, 3837, 3838, 3839, 3840, 3841, 3842, 3843, 3844, 3845, 3846, 3847, 3848,

	2960	-1270	11340	18700	18370
x/c					
.040				.1031	.1989
.400				.0670	
.419		.0012			
.850			.0330		.0301
.860					
.637	.1852				
.750				- .0077	
.728			.0264		.0017
.727					
.606		- .0121			
.732	- .0669				
.780				- .0490	
.770			- .0086		- .0370
.540				- .0907	
.966	- .0341				

[illegible]

SECTION 1: POSITIONING WITH DEPENDENT VARIABLE CP

[illegible]

10-0971 (16 APR 74)

TABLE 1 SOURCE DATA - CALCULATED PRESSURES

WIND SPEED: 100 KNOTS (100 MPH)

PARAMETRIC DATA

BETA = .000 POWER = .000
SIGNAL = 4.000 FLOOR = .000

DEPENDENT DATA

215 = 2000.000 S.F. AREA = 2000.000 IN.
215 = 1000.000 S.F. AREA = 1000.000 IN.
215 = 1000.000 S.F. AREA = 1000.000 IN.
215 = 1000.000 S.F. AREA = 1000.000 IN.

WIND (1) = 2.498 ALPHA (1) = .0000 PTC = 2312.444 PO = 136.000 P/FT = 3.003 Q = 593.111

DEPENDENT VARIABLE CP

SECTION (1) OF WIND WING

WIND (1) = 2.498 ALPHA (1) = .0000 PTC = 2312.444 PO = 136.000 P/FT = 3.003 Q = 593.111

DEPENDENT VARIABLE CP

SECTION (1) OF WIND WING

WIND (1) = 2.498 ALPHA (1) = .0000 PTC = 2312.444 PO = 136.000 P/FT = 3.003 Q = 593.111

CASE 04 EC 111 TABULATED SOURCE DATA - (A) 120 G/MG. REF. SURF.

0.00971

AVES 07-110 (A) 120 G/MG. LOWER WING PRESSURE

MACH (1) = 2.458 ALPHA (3) = 0.020 PTO = 2312.444 PO = 136.000 R/FT = 3.005 Q = 993.111

SECTION (1) LOWER WING DEPENDENT VARIABLE CP

Y/B .2990 .4210 X/B .0000 .0000 P/B .0000 .0000

X/C .030 .0028 .0028 .0028

.400 .0114 .0114 .0114

.419 .0440 .0440 .0440

.550 .0459 .0459 .0459

.600 .0235 .0235 .0235

.697 .0093 .0093 .0093

.725 .0229 .0229 .0229

.750 .0075 .0075 .0075

.806 .0728 .0728 .0728

.832 .0987 .0987 .0987

.850 .0015 .0015 .0015

.900 .0491 .0491 .0491

.950 .1136 .1136 .1136

.966 .1755 .1755 .1755

MACH (1) = 2.458 ALPHA (4) = -1.840 PTO = 2312.444 PO = 136.000 R/FT = 3.005 Q = 993.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4210 X/B .0000 .0000 P/B .0000 .0000

X/C .030 .0472 .0472 .0472

.400 .0118 .0118 .0118

.419 .0161 .0161 .0161

.550 .0523 .0523 .0523

.600 .0071 .0071 .0071

.697 .0466 .0466 .0466

.725 .0087 .0087 .0087

.750 .0873 .0873 .0873

.806 .0892 .0892 .0892

.832 .0917 .0917 .0917

.850 .0750 .0750 .0750

.900 .0875 .0875 .0875

.950 .1060 .1060 .1060

.966 .1224 .1224 .1224



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AVES 87-710 A100 01 11 31 LOWER WING PRESSURE

(R/S 009)

16 APR 74

REFERENCE DATA

SPR = 2890.0000 90.1 FT. XMRP = 999.0000 IN.
 LREF = 1128.0000 IN. YMRP = .0000
 BRPF = 1326.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ETA = .0000 R/S 009 7 1.0000
 CDR = 51.2600 R/S 009 7 .916
 AL = 4.0000 R/S 009 7 .0000

WACH (1) = 2.498 ALPHA (1) = -7.420 PTO = 2310.000 PO = 2.919 Q = 592.596

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.080				-.0501		-.0261
.400				-.0364		
.419		.0529				
.550			.0334			
.600						-.0614
.697	.0302			-.0366		
.700						
.725			-.0349			
.750					-.0881	
.806		-.0709				
.832	-.0690					
.850			-.0848			
.900		-.0857			-.1172	
.950			-.1021			
.966	-.0236					

WACH (1) = 2.498 ALPHA (2) = -5.800 PTO = 2310.000 PO = 135.778 R/FT = 2.919 Q = 592.596

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.080				-.0389		-.0030
.400				-.0226		
.419		.0091				
.550			.0246			
.600						-.0341
.697	.0303					
.700			-.0387			
.725			-.0282			
.750					-.0861	
.806		-.0748				
.832	-.0888					
.850			-.0860			
.900		-.0827			-.1109	
.950			-.1071			
.966	-.0204					



DATE 05 DEC 74

CALCULATED SOURCE DATA - 1A12C WING PRESSURES

PAGE 479

AVES 9 0910 1A12C OF T1 S1 LOWER WING PRESSURE (LP 0099)

MACH (1) = 2.498 ALPHA (3) = 3.800 PTO = 2310.000 PO = 135.778 R/FT = 2.919 Q = 592.556

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050					
.400			-.0010		.0324
.419			-.0041		
.550		-.0251			
.600			.0323		
.697	.0605				-.0316
.700				-.0581	
.725					
.750			-.0146		-.0817
.806		-.0723			
.832	-.0665				
.850			-.0642		
.900		-.0781			-.0993
.950			-.1127		
.966	-.0277				

MACH (1) = 2.498 ALPHA (4) = -1.820 PTO = 2310.000 PO = 135.778 R/FT = 2.919 Q = 592.556

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050					
.400			.0496		.0690
.419			.0102		
.550		-.0246			
.600			.0111		
.697	.1261				-.0044
.700				-.0993	
.725			.0006		
.750					-.0707
.806		-.0665			
.832	-.0832				
.850					
.900		-.0788			-.0838
.950			-.1115		-.0856
.966	-.0322				

DATE 05 DEC 74 TABULATED SOURCE DATA - (A1200000 PRESSURES)

AVES 87-710 (A1200000 M S1 LOWER WING PRESSURE) (0.92099)
 ALPHA (2) = .120 PTO = 2310.000 PO = 135.778 R/PT = 2.319 Q = 492.55

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7900	.8870
X/C						
.050				.0192		.1111
.400				.0245		
.419		-.0148				
.550			-.0136			.0241
.600						
.697	.1567			-.0361		
.700			.0107		-.0505	
.725						
.750						
.808		-.0595				
.832	-.0829			-.0797		-.0709
.850			-.0658			
.900				-.1076		
.950						
.966	-.0292					

MACH (1) = 2.488 ALPHA (6) = 2.140 PTO = 2310.000 PO = 135.778 R/PT = 2.319 Q = 592.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7900	.8870
X/C						
.050				.1022		.1532
.400				.0455		
.419		-.0076				
.550			-.0131			.0463
.600						
.697	.1617			-.0355		
.700			.0263		-.0292	
.725						
.750						
.808		-.0484				
.832	-.0733			-.0662		-.0570
.850			-.0705			
.900				-.0955		
.950						
.966	-.0250					



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$\Delta \bar{A} =$	2.419	$A_{\text{max}} - A_{\text{min}} =$	4.178	$S =$	$2010,000$	$M_0 =$	$135,776$	$P/\%$	$=$	2.319	J	$=$	$592,556$
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Dr. M. J. S. Smith

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$\Delta A_{\text{A}} = 2.458$ $\Delta A_{\text{B}} = 0.205$

DEPENDENT VARIABLE

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100																																																																																																																																							
1990	1.2995	1.4270	1.5340	1.6750	1.7900	1.8800	1.9500	2.0000	2.0400	2.0700	2.1000	2.1300	2.1600	2.1900	2.2200	2.2500	2.2800	2.3100	2.3400	2.3700	2.4000	2.4300	2.4600	2.4900	2.5200	2.5500	2.5800	2.6100	2.6400	2.6700	2.7000	2.7300	2.7600	2.7900	2.8200	2.8500	2.8800	2.9100	2.9400	2.9700	3.0000	3.0300	3.0600	3.0900	3.1200	3.1500	3.1800	3.2100	3.2400	3.2700	3.3000	3.3300	3.3600	3.3900	3.4200	3.4500	3.4800	3.5100	3.5400	3.5700	3.6000	3.6300	3.6600	3.6900	3.7200	3.7500	3.7800	3.8100	3.8400	3.8700	3.9000	3.9300	3.9600	3.9900	4.0200	4.0500	4.0800	4.1100	4.1400	4.1700	4.2000	4.2300	4.2600	4.2900	4.3200	4.3500	4.3800	4.4100	4.4400	4.4700	4.5000	4.5300	4.5600	4.5900	4.6200	4.6500	4.6800	4.7100	4.7400	4.7700	4.8000	4.8300	4.8600	4.8900	4.9200	4.9500	4.9800	5.0100	5.0400	5.0700	5.1000	5.1300	5.1600	5.1900	5.2200	5.2500	5.2800	5.3100	5.3400	5.3700	5.4000	5.4300	5.4600	5.4900	5.5200	5.5500	5.5800	5.6100	5.6400	5.6700	5.7000	5.7300	5.7600	5.7900	5.8200	5.8500	5.8800	5.9100	5.9400	5.9700	6.0000	6.0300	6.0600	6.0900	6.1200	6.1500	6.1800	6.2100	6.2400	6.2700	6.3000	6.3300	6.3600	6.3900	6.4200	6.4500	6.4800	6.5100	6.5400	6.5700	6.6000	6.6300	6.6600	6.6900	6.7200	6.7500	6.7800	6.8100	6.8400	6.8700	6.9000	6.9300	6.9600	6.9900	7.0200	7.0500	7.0800	7.1100	7.1400	7.1700	7.2000	7.2300	7.2600	7.2900	7.3200	7.3500	7.3800	7.4100	7.4400	7.4700	7.5000	7.5300	7.5600	7.5900	7.6200	7.6500	7.6800	7.7100	7.7400	7.7700	7.8000	7.8300	7.8600	7.8900	7.9200	7.9500	7.9800	8.0100	8.0400	8.0700	8.1000	8.1300	8.1600	8.1900	8.2200	8.2500	8.2800	8.3100	8.3400	8.3700	8.4000	8.4300	8.4600	8.4900	8.5200	8.5500	8.5800	8.6100	8.6400	8.6700	8.7000	8.7300	8.7600	8.7900	8.8200	8.8500	8.8800	8.9100	8.9400	8.9700	9.0000	9.0300	9.0600	9.0900	9.1200	9

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1957	.697	.1784

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TABULATED SOURCE DATA - (A120 WING PRESSURES)

1.000000

AVES 87-710 (A120 ON N1 S1 LOWER WING PRESSURE)

MACH (1) = 2.458 ALPHA (9) = 8.250 PWC = 2310.000 PO = 135.70 R/FY = 2.019 C = 500.19

SECTION 1 (UPPER WING) DEPENDENT VARIABLE CP

SECTION 1 (UPPER WING)

Y/P	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050				.1924		.3228
.400				.1135		
.419		.1023				
.530			.0853			.1682
.600						
.697						
.700	.2000			.0790		
.725			.1998			
.750					.1177	
.808		.0432				
.832	-.0240					
.850			.0226			.0357
.900		.0402				
.950			.0704			
.966	-.0156					



TABLED SOURCE DATA - TABLED PRESSURES

CURV (2) (16 APR 74)

AVES / MID TABLED TO ST LOUEN WING PRESSURE

PARAMETRIC DATA

DETA = .000 POWER = .000
GUMAL = 4.000 PUDDER = .000

DEPENDENT DATA

SECT = 26.00000 SLFET. YPR = 933.0000 IN.
LAT = 1128.0000 IN. YPR = 1000.0000 IN.
RPR = 1128.0000 IN. ZPR = 400.0000 IN.
SCALE = 1.0000 SCALE

WACH (1) = 3.002 ALPHA (1) = -7.80 PTC = 2311.889 PC = 63.000 RPT = 2.228 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/C	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090				.0191		.0558
.400				-.0069		
.419		.0941				
.550			.0699			-.0130
.600						
.697	.0695					
.700				-.0062		
.725			.0112			
.750					-.0476	
.806		-.0261				
.832	-.0382					
.850				-.0497		-.0379
.900		-.0746				
.950				-.0757		
.966	-.1095					

WACH (1) = 3.002 ALPHA (2) = -5.880 PTC = 2311.889 PC = 63.000 RPT = 2.228 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/C	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090				.0255		.0800
.400				.0034		
.419		.0498				
.550			.0808			-.0052
.600						
.697	.0584					
.700				-.0076		
.725			.0062			-.0050
.750						
.806		-.0372				
.832	-.0418					
.850				-.0472		-.0029
.900		-.0769				
.950				-.0753		
.966	-.1116					

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 484

WINGS 87-710 1A12C (1) 11 ST LOWER WING PRESSURE (0.92102)

MACH (1) = 3.002 ALPHA (3) = -3.500 PTO = 2311.600 PO = 63.000 R/FT = 2.226 Q = 309.10

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6730 .7900 .9170

X/C

.050			.0246		.1042
.400			.0246		
.419		.0180			
.550		.0402			
.600					.0073
.697	.0745				
.700			-.0276		
.725		.0126			
.750				-.0479	
.806					
.832	-.0432				
.890	-.0397				
.900			-.0500		
.940		-.0700			-.0463
.966			-.0761		
	-.1123				

MACH (1) = 3.002 ALPHA (4) = -1.870 PTO = 2311.600 PO = 63.000 R/FT = 2.226 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6730 .7900 .9170

X/C

.050			.0592		.1295
.400			.0315		
.419		.0219			
.550		.0794			
.600					.0255
.697	.0823				
.700			-.0294		
.725		.0112			
.750				-.0376	
.806					
.832	-.0304				
.890					
.900			-.0500		
.940		-.0666			-.0379
.966			-.0750		
	-.1075				



WACH	1' = 9.002	ALPHA (°) = 4.120	PO = 2311.899	R/FT = 2.224	3
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2015-10-10 10:10:10

ONIA 2341850(1) 14111035

0 - 710 413063

[illegible]
$$\begin{aligned} WACH(1) &= 3.002 & ALPHA(8) &= 6.100 & PTO &= 2311.869 & PQ &= 65,000 & R/FY &= 2.226 & Q &= 336,000 \end{aligned}$$

SECTION (1) OCTOBER 1946

DEPENDENT VARIABLE OF

Y/Y	.2990	.4270	.5340	.6750	.7600	.8870
X/C						
.090						.2884
.400				.1475		
.419		.0122		.0732		
.990			.0359			
.600						.1174
.697	.1078					
.700				.0219		
.725			.0301			
.750					.0212	
.808		.-0128				
.832	-.0165					
.850						
.900				-.0215		
.950			-.0394			.0144
.966	-.0978			-.0900		

DATE 05 SEP 71

TABLETED SOURCE DATA - (A120 GING PRESSURES)

PAGE 487

MACH 1.12 1.012 ALPHA 9 = 0.110 AVE 0.710 (A120 GING PRESSURE) (0.2102)
 SECTION 11001 PER WING X/C = 2311.889 PO = 63.000 P/F = 2.226 0 = 396.000

DEPENDENT VARIABLE CP

Y/C	.2500	.4270	.5340	.6750	.7500	.8870
X/C						
.090						
.400				.1695		.3445
.419				.0904		
.450		.0459				
.607			.0860			
.617						.1521
.700	.1079					
.725				.0391		
.750			.0216			
.806					.0459	
.822						
.830						
.900						
.950						
.966						



TABULATED SOURCE DATA - (A12C WING PRESSURES)

5.1 1 DEC 74

0.87103 (16 4:17 PM)

AMES 67-713 (A12C ON THE SL LOWER WING PRESSURE)

REFERENCE DATA

S-13 = 8690.0000 SQ.FT. $\bar{X}_{CP} = 953.000$ IN.
 CREF = 1328.0000 IN. $\bar{Y}_{CP} = 10000$ IN.
 PREF = 1328.0000 IN. $\bar{Z}_{CP} = 400.0000$ IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 $\mu_{OLR} = 1.000$
 CPM = 26.860 $\mu_{CPM} = 1.000$
 CUMUL = 4.010 $\mu_{CUMUL} = 1.000$

= 395.333

MACH (1) = 3.002 ALPHA (1) = -7.680 PTO = 2309.333 PO = 62.778 R/PT = 2.220 Q = 395.333

DEPENDENT VARIABLE CP

SECTION (1) UPPER WING

Y/B .2960 .4270 .5340 .6750 .7800 .8070

X/C
 .090 .0195 .0349
 .400 .0004
 .419 .0424
 .550 .0653
 .600 .0141
 .697 .0798
 .700 .0108
 .725 .0133
 .750 .00920
 .808 .0028
 .832 .0025
 .890 .0496
 .900 .0053
 .900 .0752
 .906 .0560
 .906 .0075

MACH (1) = 3.002 ALPHA (2) = -5.880 PTO = 2309.333 PO = 62.778 R/PT = 2.220 Q = 395.333

SECTION (1) LOWER WING

Y/B .8980 .4270 .5340 .6750 .7800 .8070

X/C
 .090 .0233 .0790
 .400 .0129
 .419 .0266
 .550 .0380
 .600 .0063
 .697 .1238
 .700 .0263
 .725 .0109
 .750 .0012
 .808 .0364
 .832 .0193
 .890 .0326
 .900 .0526
 .900 .0646
 .900 .0782
 .906 .0026



DATE 05/18/70

VARIABLE SOURCE (1) = 1120 (WIND PRESSURE)

PAGE 489

LES 8-210 1120 01 11 01 LOWER WIND PRESSURE

0.921031

SECTION 1 (DEPENDENT VARIABLE) PTO = 2309.333 PO = 62.778 R/PT = 2.220 Q = 399.333

DEPENDENT VARIABLE CP

1120 .2590 .4270 .5340 .6730 .7100 .8470

090						
400			.0244			.1009
419			.0365			
430		.0230				
600			-.0002			
697	.1430					.0046
700						
725			-.0315			
750			.0045			
806		-.0380			-.0441	
822	-.0184					
840			-.0635			
840		-.0613				
840			-.0634			-.0441
846	.0017					

WACH (1) = 3.002 ALPHA (4) = -1.690 PTO = 2309.333 PO = 62.778 R/PT = 2.220 Q = 399.333

SECTION 1 (DEPENDENT VARIABLE) DEPENDENT VARIABLE CP

1120 .2990 .4270 .5340 .6730 .7100 .8470

090						
400			.0998			.1263
419			.0730			
430		.0253				
600			.0050			
697	.1332					.0288
700						
725			-.0268			
750		-.0053				
806					-.0314	
822	-.0196					
840			-.0630			
840		-.0616				-.0346
840			-.0485			
846	-.0090					

DATE 11/14/74 TABULATED SOURCE DATA - (A12C WING PRESSURE)

AVES 8P-710 (A12C ON T1 SL LOWER WING PRESSURE) 0.921031

MACH (1) = 3.012 ALPHA (5) = .120 PTO = 2509.333 PO = 62.778 R/PT = 2.220 Q = 395.353

SECTION (1) LOWER WING

Y/B .2950 .4270 .5340 .6430 .7510 .8600

Y/C	Y/B	Y/C	Y/B	Y/C	Y/B
.090	.0852	.1615			
.400	.0704				
.419					
.500	.0147	.0475			
.600					
.697	.0992				
.700		-.0173			
.725		-.0069			
.750					
.766	-.0242				
.852	-.0139				
.850		-.0543			
.900	-.0690	-.0158			
.950	-.0804				
.966	.0043				

MACH (1) = 3.002 ALPHA (6) = 2.110 PTO = 2509.333 PO = 62.778 R/PT = 2.220 Q = 395.353

DEPENDENT VARIABLE CP

SECTION (1) LOWER WING

Y/B .2950 .4270 .5340 .6430 .7510 .8600

Y/C	Y/B	Y/C	Y/B	Y/C	Y/B
.090	.1006	.2052			
.400	.0704				
.419					
.500	.0102	.0458			
.600					
.697	.0994				
.700		-.0114			
.725		-.0034			
.750					
.766	-.0270	-.0040			
.852	-.0166				
.850		-.0567			
.900	-.0227	-.0132			
.950	-.0772				
.966	.0059				



DATA IN DEC 74 TABULATED SOURCE DATA - (A120 WING PRESSURES)

MACH (1) = 3.002 ALPHA (1) = 4.110 PTO = 2309.333 PO = 62.778 R/FT = 2.220 Q = 395.333
 (LB/FT²)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2650	.4270	.5340	.6730	.7500	.8870
X/C						
.050				.1219		.2421
.400				.0874		
.419		.0205				
.550			.0141			.0945
.670						
.697	.0784					
.700				.0045		
.725			.0019		.0173	
.730						
.806						
.832		-.0242				
.850	-.0070			-.0360		.0065
.900			-.0591			
.950				-.0630		
.966	.0223					

MACH (1) = 3.002 ALPHA (8) = 6.160 PTO = 2309.333 PO = 62.778 R/FT = 2.220 Q = 395.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2650	.4270	.5340	.6730	.7500	.8870
X/C						
.050				.1509		.2910
.400				.1114		
.419		.0167				
.550			.0447			.1250
.670						
.697	.0679					
.700				.0311		
.725			.0112		.0454	
.730						
.806						
.832		-.0112				
.850	.0090			-.0137		.0237
.900			-.0624			
.950				-.0510		
.966	.0304					

DATE 15 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

(LBZ103)

WACH (1) = 3.002 ALPHA (9) = 8.150 1A12C OF 11 51 LOWER WING PRESSURE
 AVES 87-710 1A12C OF 11 51 2309.373 PO = 62.776 R/FT = 2 220 Q = 369.117

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7930 .8670

X/C

.050			.1690		.3439
.400			.0942		
.419	.0497				
.550		.0683			.1512
.600					
.697	.0523		.0820		
.700		.0127			
.725				.0766	
.750					
.806	-.0091				
.832	.0316		.0000		.0372
.850					
.900		-.0650			
.950			-.0441		
.966	.0480				



DATE 05 DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

WES 87-110 14120 05 11 01 LOWER WING PRESSURE SECTION

MACH = 3.499 ALPHA (3) = -3.750 PTO = 2314.444 PO = 30.000 R/PY = 1.740 Q = 200.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C					
.050			.0280		.0543
.400			.0280		
.415		.0301			
.550		.0259			.0313
.650					
.697	.1574				
.750					
.725		.0443			
.806					
.832					
.850					
.900					
.950					
.968					

MACH (1) = 3.499 ALPHA (4) = -1.740 PTO = 2314.444 PO = 30.000 R/PY = 1.740 Q = 200.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C					
.050			.0820		.1304
.400			.0384		
.415		.0328			
.550		.0241			.0470
.600					
.697	.1406				
.700					
.725		.0350			
.750					
.806					
.832					
.850					
.900					
.950					
.968					



DATE 03 DEC 74 749 JUL 80 SOURCE DATA - 1A12C WING PRESSURES)

(LPZ103)

WING (1) = 3.499 ALPHA (5) = .250 PTO = 2314.444 PO = 30.000 R/F = 1.740 Q = 260.556
 ASES 87-710 1A12C 01 T1 S1 LOWER WING PRESSURE

DEPENDENT VARIABLE CP

SECTION (1) UPPER WING

X/B .2500 .4270 .5340 .6730 .7800 .8870

X/C

.090 .0789 .1613
 .400 .0443
 .419 .0383
 .550 .0284
 .600 .0628
 .697 .1297
 .700 .0016
 .725 .0318
 .750 .0016
 .806 -.0068
 .832 -.0041
 .850 -.0396
 .900 -.0510
 .950 -.0580
 .966 -.0765
 .0102

WING (1) = 3.499 ALPHA (6) = 2.280 PTO = 2314.444 PO = 30.000 R/F = 1.740 Q = 260.556

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

X/B .2500 .4270 .5340 .6730 .7800 .8870

X/C

.090 .1313 .2412
 .400 .0464
 .419 .0306
 .550 .0274
 .600 .0775
 .697 .1045
 .700 -.0018
 .725 .0257
 .750 -.0120
 .806 -.0020
 .832 -.0056
 .850 -.0370
 .900 -.0510
 .950 -.0560
 .966 -.0743
 .0177



AVES 67-710 1A12C OF T1 S1 LOWER WING PRES. JUNE

(LBZ106)

MACH (1) = 3.499 ALPHA (1) = 4.250 PTO = 2314.444 PO = 30,000 R/PT = 1.740 Q = 260.556

SECTION 1 (ORBITER WING)

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090			.1515		.2700
.400			.0458		
.419	.0219				
.550		.0126			.0983
.600					
.697	.0956				
.700			-.0034		
.725		.0224			
.750				-.0045	
.806	-.0069				
.832	-.0069				
.850			-.0353		.0274
.900		-.0516			
.950			-.0564		
.966	-.0743				

MACH (1) = 3.499 ALPHA (8) = 6.290 PTO = 2314.444 PO = 30,000 R/PT = 1.740 Q = 260.556

SECTION 1 (ORBITER WING)

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090			.1410		.3115
.400			.0566		
.419	.0067				
.550		.0219			.1297
.600					
.697	.0706				
.700			.0063		
.725		.0456			
.750				.0188	
.806	-.0096				
.832	-.0096				
.850			-.0256		.0501
.900		-.0467			
.950			-.0424		
.966	-.0694				

DATE 05 DEC 71 TABULATED SOURCE DATA - (AIRCRAFTING PRESSURES)

(0.02100)

AMES 87-710 TAIRC ON TI SI LOWER WING PRESSURE

WACH (1) = 2.499 ALPHA (B) = 9.240 PTO = 2314.444 PO = 30.000 PFT = 1.740 3 = 260.596

SECTION 1 (LOWER WING) DEPENDENT VARIABLE CP

1.5 .2950 .4270 .5340 .6750 .7800 .8870

A/C

.090

.1611

.3668

.400

.0537

.419

.0382

.550

.0535

.600

.1644

.697

.0660

.700

.0285

.725

.0388

.750

.0480

.806

-.0161

.832

-.0172

.850

-.0034

.900

-.0321

.950

-.0250

.966

-.0765

.0724

DATE 05 DEC 74

TABULATED SOURCE DATA - (A12C WING PRESSURES)

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AVES 87-710 T12C 21 11 51 LOWER WING PRESSURE

(LB2107)

(15 APR 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
 LREF = 1328.0000 IN. YMRP = 0.0000 IN.
 BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BEVA = .000 POWER = 1.000
 TOL = .000 COVER = .026
 TOLAL = 4.000 COVER = .000

MACH (1) = 3.499 ALPHA (1) = 17.735 PTO = 2312.778 PO = 30.222 R/FT = 1.733 Q = 260.222

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .0386 .0874
 .400 .0159
 .419 .0519
 .550 .0568
 .600 .0156
 .697 .2100
 .700 -.0077
 .725 .0584
 .750
 .808 -.0027
 .832 .0223
 .850
 .900 -.0314
 .920 -.0282
 .950 -.0478
 .966 .0319
 .0121

MACH (1) = 3.499

ALPHA (2) = -5.720

PTO = 2312.778

PO = 30.222

R/FT = 1.733

Q = 260.222

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .0477 .1049
 .400 .0255
 .419 .0578
 .550 .0388
 .600 .0204
 .697 .1633
 .700 -.0080
 .725 .0399
 .750
 .808 -.0042
 .832 .0286
 .850 -.0341
 .900 -.0358
 .920 -.0542
 .950
 .966 .0307
 -.0093

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A120 (WING PRESSURES)

(0.92107)

WING (1) = 3.499 ALPHA (3) = -3.730 PTO = 2312.778 PO = 30.222 R/PT = 1.733 Q = 240.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090				.0280	.1131	
.400				.0516		
.419		.0368				
.550			.0302			
.600					.0330	
.697	.1020					
.700				.0012		
.725			.0232			
.750					-.0165	
.806		-.0071				
.832	.0248			-.0337		
.930			-.0369		-.0025	
.950				-.0594		
.966	.0534					

WING (1) = 3.499 ALPHA (4) = -1.740 PTO = 2312.778 PO = 30.222 R/PT = 1.733 Q = 240.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090				.0467	.1320	
.400				.0704		
.419		.0638				
.550			.0361			
.600					.0492	
.697	.0846					
.700				.0103		
.725			.0225			
.750					-.0082	
.806		-.0032				
.832	.0417					
.930			-.0262		.0069	
.950			-.0368		-.0459	
.966	.0373					

DATE 03 DEC 74 TABULATED FORCE DATA - (A12C WING PRESSURES)

(LBZ107)

ACES 87-710 A12C OR 11 ST LOWER WING PRESSURE

MACH (1) = 3.499 ALPHA (5) = .270 Q = 2312.778 PO = 30.222 R/PT = 1.733 Q = 260.222

DEPENDENT VARIABLE CP

SECTION (1) OR 11 ST WING

X/C .2990 .4270 .5340 .6730 .7800 .8870

X/C	CP	CP	CP	CP	CP
.090	.0021	.0024			
.400	.0041				
.419					
.550	.0436				
.600					
.697	.0470				
.700		.0199			
.725		.0274			
.750			.0158		
.806	-.0024				
.832	.0487				
.850		-.0237			
.900		-.0415		.0215	
.950		-.0496			
.966	.0436				

MACH (1) = 3.499 ALPHA (6) = 2.240 PTO = 2312.778 PO = 30.222 R/PT = 1.733 Q = 260.222

DEPENDENT VARIABLE CP

SECTION (1) OR 11 ST WING

X/C .2990 .4270 .5340 .6730 .7800 .8870

X/C	CP	CP	CP	CP	CP
.090	.1358	.2599			
.400	.0693				
.419					
.550	.0482				
.600					
.697	.0418				
.700		.0202			
.725		.0281			
.750			.0174		
.806	.0016				
.832	.0353				
.850		-.0187			
.900		-.0365		.0223	
.950		-.0447			
.966	.0520				



DATE 09 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURES

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WING (1) = 3.499 ALPHA (1) = 4.040 PTD = 2312.778 PO = 30.222 R/PT = 1.733 Q = 260.222
 ANES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE (0.82107)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7900	.8870
K/C						
.090				.1604		.2710
.400				.0822		
.419		.0544				
.950			.0407			.10.5
.600						
.697	.0365					
.700				.0257		
.725			.0298			
.750					.0240	
.806		.0140				
.822	.0816					
.890			-0.0161			.0348
.900						
.950						
.966	.0631					

WING (1) = 3.499 ALPHA (1) = 6.310 PTD = 2312.778 PO = 30.222 R/PT = 1.733 Q = 260.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7900	.8870
K/C						
.090				.1446		.3109
.400				.0691		
.419		.0400				
.950			.0499			.1303
.600						
.697	.0306					
.700				.0494		
.725			.0477			
.750					.0482	
.806		.0417				
.822	.0592					
.890				.0060		.0504
.900			-0.0034			
.950						
.966	.0641					

TABLED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-710 1A12C OF T1 S3 LOWER WING PRESSURE (LB/IN²) (16 APR 74)

REFERENCE DATA

3477 = 1090.0000 53.17. XAMP = 955.0000 IN.
 3478 = 1528.0000 IN. XAMP = 1000.0000 IN.
 3479 = 1528.0000 IN. XAMP = 400.0000 IN.
 SCALE = .019% SCALE

PARAMETRIC DATA

BETA = .000 POWER = 1.000
 CTR = 26.860 STAMP = .768
 G14CAL = 1.000 RUDDER = .000

MACH (1) = 3.072 ALPHA (1) = -7.910 PTO = 2295.556 PO = 62.000 R/PT = 2.310 Q = 392.776

SECTION (1) 100% WING DEPENDENT VARIABLE CP

X/B	.2500	.4270	.5340	.6750	.7800	.8870
X/C						
.050				.0244		.0621
.400				.0078		
.419		.0466				
.590			.0879			
.600						-.0076
.697	.0612					
.700			-.0039			
.725		.0157				
.750					-.0461	
.806		-.0290				
.832	-.0297					
.850		-.0447				
.900	-.0576				-.0522	
.950		-.0696				
.966	-.0681					

MACH (1) = 3.002 ALPHA (2) = -5.900 PTO = 2295.556 PO = 62.000 R/PT = 2.310 Q = 392.776

SECTION (1) 100% WING DEPENDENT VARIABLE CP

X/B	.2500	.4270	.5340	.6750	.7800	.8870
X/C						
.050				.0293		.0837
.400				.0174		
.419		.0280				
.590			.0410			
.600						-.0027
.697	.1004					
.700			-.0195			
.725		.0104				
.750						
.806		-.0364			-.0471	
.832	-.0292					
.850		-.0479				
.900		-.0604				-.0466
.950		-.0722				
.966	-.0507					

DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LBZ109)

AVES 87-710 1A12C 01 T1 S3 LOWER WING PRESSURE

MACH (1) = 3.012 ALPHA (5) = .110 PTO = 2295.556 PO = 62.000 R/FT = 2.310 Q = 392.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C					
.050			.0966		.1646
.400			.0737		
.419	.0323				
.550		.0128			.0492
.600					
.637	.1119				
.700			-.0120		
.725					
.750			-.0080		-.0099
.806					
.832					
.850	-.0170		-.0504		-.0153
.900			-.0568		
.950			-.0755		
.966	-.0210				

MACH (1) = 3.002 ALPHA (6) = 2.090 PTO = 2295.556 PO = 62.000 R/FT = 2.310 Q = 392.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C					
.050			.1029		.2086
.400			.0754		
.419	.0295				
.550		.0104			.0705
.600					
.637	.1087				
.700			-.0076		
.725					
.750				.0013	
.806					
.832					
.850	-.0176		-.0532		-.0059
.900					
.950			-.0564		-.0722
.966	-.0130				

DATE 05 DEC 74

TABULATED SOURCE DATA - (AIRFLOW PRESSURES)

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AXES 87-710 (AIRFLOW IN 1/2 LOWER WING PRESSURE (LB/IN²))

MACH (1) = 3.002 ALPHA (2) = 4.110 PTD = 2295.356 PO = 62.000 R/PT = 2.310 Q = 392.778

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.1236	.2424			
.400	.0906				
.419					
.550	.0187	.0130			
.600					.5951
.697	.0911				
.700		.0075			
.725		.0025		.0200	
.750					
.805	-.0195				
.832	-.0227				
.850		-.0349			.0085
.900		-.0508			
.950		-.0584			
.966	-.0028				

MACH (1) = 3.002 ALPHA (8) = 6.090 PTD = 2295.356 PO = 62.000 R/PT = 2.310 Q = 392.778

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090	.1538	.2909			
.400	.1158				
.419					
.550	.0141	.0374			
.600					.1256
.697	.0948				
.700		.0336			
.725		.0115		.0468	
.750					
.806	-.0104				
.832	-.0223				
.850		-.0104			.0271
.900		-.0523			
.950		-.0477			
.966	-.0104				

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

WACH (1) = 3.002 ALPHA (9) = 8.110 PTO = 2295.556 PO = 62.000 R/FT = 2.310 Q = 392.776
 ASES 87-710 1A12C ON T1 S3 LOWER WING PRESSURE (LBZ109)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090				.1725		.3477
.400				.0952		
.419		.0444				
.550			.0841			.1583
.600						
.697	.0724			.0902		
.700						
.725			.0156		.0681	
.750						
.806		-.0127				
.832	-.0026			.0073		.0437
.850						
.900			-.0608			
.950				-.0303		
.966	-.0098					



TABULATED SOURCE DATA - (A12C WING PRESSURES)

DATE 15 DEC 74 (REFS 87-710 (A12C 01 TO 03 LOWER WING PRESSURE) (BZ112) (16 APR 74)

REFERENCE DATA

REF = 2690.0000 SQ.FT XMRP = 945.0000 IN.
 LREF = 1329.0000 IN. YMRP = 1000.0000 IN.
 BREF = 329.0000 IN. PMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

PSYA = .000 POLEP = 1.000
 CWT = .000 STWTR = .000
 AL = 1.764 RUDDER = .000

MACH (1) = 3.499 ALPHA (1) = -7.760 PTD = 2308.556 PO = 30.000 R/FT = 1.764 Q = 259.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050				.0391		.0378
.400				.0185		
.419		.0579				
.590			.0590			
.600						.0196
.697	.2109					
.700				-.0080		
.725			.0617			
.750					-.0303	
.806		.0013				
.832	.0133					
.890			-.0270			-.0102
.900		-.0284				
.950			-.0485			
.966	.0372					

MACH (1) = 3.499 ALPHA (2) = -5.760 PTD = 2308.556 PO = 30.000 R/FT = 1.764 Q = 259.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050				.0310		.1058
.400				.0250		
.419		.0551				
.590			.0360			.0221
.600						
.697	.1766					
.700				-.0053		
.725			.0442			
.750					-.0300	
.806		-.0033				
.832	.0115					
.890			-.0305			-.0066
.900		-.0327				
.950			-.0512			
.966	.0377					



DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURES)

PAGE 509

MACH (1) = 3.499 ALPHA (3) = -3.770 PTO = 2308.556 PO = 30.000 R/FT = 1.764 Q = 259.778
 AMES 87-710 1A12C ON T1 S3 LOWER WING PRESSURE (LB/IN²)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050				.0302		.1124
.400				.0507		
.419		.0598				
.550			.0304			
.600						.0345
.697	.1201					
.700			.0026			
.725		.0272				
.750					-.0169	
.806		-.0049				
.832	.0141					
.850			-.0320			
.900		-.0320			-.0001	
.950			-.0553			
.965	.0429					

MACH (1) = 3.499 ALPHA (4) = -1.750 PTO = 2308.556 PO = 30.000 R/FT = 1.764 Q = 259.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050				.0841		.1329
.400				.0683		
.419		.0803				
.550			.0336			
.600						.0509
.697	.0671					
.700			.0102			
.725		.0223			-.0099	
.750						
.806		-.0077				
.832	.0235					
.850			-.0293			.0085
.900		-.0403				
.950			-.0550			
.965	.0431					

DATE 05 DEC 74 TABULATED SOURCE DATA - (A12C (WING PRESSURES))

MACH (1) = 3.499 ALPHA (5) = .250 PTO = 2509.556 PO = 30.000 R/PT = 1.764 Q = 259.778
 AVE 87-710 (A12C OF TI 33 LOWER WING PRESSURE) (0.22112)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090				.0837	.1428	
.400				.0837		
.419		.0629				
.550			.0400			.0647
.600						
.697	.0461					
.700				.0197		
.725		.0270			.0083	
.750						
.808		-.0106				
.832	.0234					
.853			-.0242		.0191	
.900		-.0410				
.950			-.0502			
.963	.0502					

MACH (1) = 3.499 ALPHA (6) = 2.250 PTO = 2509.556 PO = 30.000 R/PT = 1.764 Q = 259.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090				.1358	.2394	
.400				.0790		
.419		.0543				
.550			.0412			.0773
.600						
.697	.0375					
.700				.0193		
.725		.0287			.0095	
.750						
.808		-.0135				
.832	.0244					
.853				-.0230	.0219	
.900			-.0436			
.950				-.0464		
.966	.0287					

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.499 ALPHA (7) = 4.240 PTO = 2308.556 PO = 30.000 R/FT = 1.764 Q = 259.776
 (LBZ112)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .050 .1555 .2723
 .400 .0710
 .419 .0475
 .550 .0252
 .600 .0996
 .697 .0279
 .700 .0233
 .725 .0284
 .750 .0168
 .806 -.0151
 .832 .0247
 .850 -.0189
 .900 -.0433
 .950 -.0395
 .966 .0312

MACH (1) = 3.499 ALPHA (8) = 6.220 PTO = 2308.556 PO = 30.000 R/FT = 1.764 Q = 259.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .050 .1464 .3118
 .400 .0731
 .419 .0348
 .550 .0361
 .600 .1289
 .697 .85
 .700 .0470
 .725 .0435
 .750 .0307
 .806 .0037
 .832 .0381
 .850 .0031
 .900 -.0366
 .950 -.0274
 .966 .0348

DATE 05 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

WING (1) = 3.499 ALPHA (9) = 8.250 A12C Q1 T1 S3 LOWER WING PRESSURE (LBZ112) R/FT = 1.754 Q = 259.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8970
X/C						
.050				.1615		.3623
.400				.1017		
.419		.0443				
.550			.0792			.1613
.600						
.697	.0329			.0826		
.700						
.725			.0328			
.750					.0863	
.806		.0350				
.832	.0498					
.850				.0109		.0705
.900			-.0156			
.950				-.0303		
.966	.0503					



TABLED SOURCE DATA - 1A12C WING PRESSURE

062114 (16 APR 74)

DATE 05 DEC 74
AVES 07-710 1A12C Q1 T1 S2 LOWER WING PRESSURE

PARAMETRIC DATA

BETA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = .000

REFERENCE DATA

SPR = 2490.0000 93.87, XREF = 953.0000 IN.
LREF = 1326.0000 IN, XREF = .0000 IN.
BREF = 1326.0000 IN, XREF = 400.0000 IN.
SCALE = .0190 SCALE

MACH (1) = 3.002 ALPHA (1) = -7.900 PTO = 2297.444 PO = 62.000 R/PT = 2.325 Q = 393.000

DEPENDENT VARIABLE CP

SECTION (1) OVER WING

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090				.0183		.0669
.400				.0122		
.419		.0770				
.550			.0873			-.0064
.600						
.697	.0868			.0044		
.700			.0196		-.0465	
.725						
.750						
.808		-.0213				
.832	-.0332			-.0369		-.0460
.850			-.0652		-.0646	
.900						
.930						
.966	-.1059					

MACH (1) = 3.002 ALPHA (2) = -5.690 PTO = 2297.444 PO = 62.000 R/PT = 2.325 Q = 393.000

DEPENDENT VARIABLE CP

SECTION (1) OVER WING

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090				.0338		.0847
.400				.0180		
.419		.0878				
.550			.0555			.0008
.600						
.697	.0878			-.0171		
.700			.0209		-.0458	
.725						
.750						
.808		-.0295				
.832	-.0346			-.0422		-.0440
.850			-.0655		-.0644	
.900						
.930						
.966	-.1059					



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

(LBZ114)

MACH (1) = 3.002 ALPHA (3) = -3.890 PTD = 2297.444 PO = 62.000 R/PT = 2.325 Q = 393.000

SECTION 1108178 WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8670

X/C

.050	.0513	.1076
.400	.0244	
.419	.0191	
.550	.0328	.0130
.600		
.697	.1127	
.700		
.725	.0266	
.750		
.806	-.0281	-.0422
.832	-.0308	
.850		
.900	-.0398	-.0397
.950		-.0545
.966	-.1073	

MACH (1) = 3.002 ALPHA (4) = -1.690 PTD = 2297.444 PO = 62.000 R/PT = 2.325 Q = 393.000

SECTION 1108178 WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8670

X/C

.050	.0704	.1362
.400	.0374	
.419	.0245	
.550	.0209	.0306
.600		
.697	.1047	
.700		
.725	.0281	
.750		
.806	-.0237	-.0293
.832	-.0230	
.850		
.900	-.0555	-.0458
.950		-.0300
.966	-.1028	-.0603



WACH (1) = 3.002 ALPHA (5) = .100 PTD = 2297.444 PO = 62.000 P/FT = 2.325 Q = 593.000
 AVE5 37.710 (A12C ON T1 S2 LOWER WING PRESSURE C.B.2114)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/P	.250	.4270	.5340	.6750	.7800	.8870
X/C						
.090			.0983		.1751	
.400			.0325			
.419		.0276				
.590			.0123			
.690					.0507	
.697	.1076					
.700						
.725						
.750			.0324			
.806						
.832						
.850						
.870						
.890						
.946						

WACH (1) = 3.002 ALPHA (6) = 2.090 PTD = 2297.444 PO = 62.000 P/FT = 2.325 Q = 593.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/P	.2590	.4270	.5340	.6750	.7800	.8870
X/C						
.090				.1075		.2023
.400				.0417		
.419		.0270				
.590			.0080			
.600						.0664
.697	.1290					
.700						
.725						
.750			.0379			
.806						
.832						
.850						
.870						
.890						
.946						

TABLED GEOMETRIC DATA - 1.120 210 PRESSURES

(.92114)

1.120 210 PRESSURE

WING (1) = 3.002 ALPHA (1) = 4.110 PTO = 2297.444 PO = 62.000 R/PY = 2.325 Q = 233.000

SECTION (1) COEFFICIENTS WING DEPENDENT VARIABLE CP

1/8 2.990 .4270 .5340 .6750 .7600 .8870

1/8	2.990	.4270	.5340	.6750	.7600	.8870
1/8	.030	.1174	.2474			
1/8	.470	.0603				
1/8	.419	.0112				
1/8	.590	.0208				
1/8	.600					
1/8	.697	.1131				
1/8	.700					
1/8	.725	.0472				
1/8	.790					
1/8	.808	-.0083				
1/8	.832	-.0122				
1/8	.890	-.0472				
1/8	.900					
1/8	.990	-.0476				
1/8	.996	-.0991				

WING (1) = 3.002 ALPHA (1) = 4.110 PTO = 2297.444 PO = 62.000 R/PY = 2.325 Q = 233.000

SECTION (1) COEFFICIENTS WING DEPENDENT VARIABLE CP

1/8 2.990 .4270 .5340 .6750 .7600 .8870

1/8	2.990	.4270	.5340	.6750	.7600	.8870
1/8	.090	.1526	.2865			
1/8	.400	.0809				
1/8	.419	.0271				
1/8	.590	.0372				
1/8	.600					
1/8	.697	.1361				
1/8	.700					
1/8	.725	.0372				
1/8	.750					
1/8	.808	.0033				
1/8	.832	-.0107				
1/8	.890	-.0087				
1/8	.900	-.0328				
1/8	.990	-.0371				
1/8	.996	-.0989				

DATA 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

YES 87-710 1A12C 01 T1 S2 LOWER WING PRESSURE (LBZ114)

WACH 11 = 1.002 ALPHA (9) = 8.120 PTO = 2297.444 PO = 62.000 R/PT = 2.325 0 = 393.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/C	.2950	.4270	.5340	.6750	.7800	.8670
.090				.1645		.3562
.400				.0970		
.419		.0460				
.550			.0699			.1677
.600						
.697	.0660			.0640		
.700			.0444		.0658	
.723						
.750						
.808		.0098				
.832	-.0084					
.850			.0068	.0210		.0961
.900						
.950				-.0246		
.966	-.0679					

AIRC 07-210 14120 IN 71 S2 LOWER WING PRESSURE

R031171 (18 APR 74)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2850.0000 SQ.FT. WREF = 953.1250 IN.
 SREF = 1928.0000 IN. WREF = 770.0000 IN.
 PRES = 1328.0000 IN. WREF = 400.0000 IN.
 SCALE = 1.0000 SCALE

WACH (1) = 3.002 ALPHA (1) = -7.930 PTO = 2234.667 PO = 62.000 RPT = 2.253 Q = 392.669

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .090 .0141 .0656
 .400 .0230
 .419 .0331
 .550 .0299
 .600 .0108
 .697 .1427
 .700 -.0206
 .723 .0274
 .750 -.0483
 .768 -.0231
 .832 -.0066
 .870 -.0439
 .900 -.0503
 .950 -.0647
 .966 .0238
 .9517

WACH (1) = 3.002 ALPHA (2) = -5.930 PTO = 2234.667 PO = 62.000 RPT = 2.253 Q = 392.669

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .090 .0361 .0630
 .400 .0304
 .419 .0304
 .550 .0124
 .600 .0003
 .697 .1371
 .700 -.0309
 .723 .0200
 .750 -.0431
 .768 -.0061
 .832 .0032
 .870 -.0559
 .900 -.0499
 .950 -.0639
 .966 .0193
 .9517



WING (1) = 3.002 ALPHA (3) = -3.940 PTO = 2294.667 PO = 62.000 R/PT = 2.253 Q = 392.889 (LBZ117)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .0907 .1059
 .400 .0361
 .419 .0277
 .550 .0003
 .600 .0147
 .697 .1515
 .700 -.0501
 .725 .0104
 .750 -.0320
 .806 -.0275
 .832 .0016
 .850 -.0625
 .900 -.0513
 .950 -.0786
 .966 -.0334

WING (1) = 3.002 ALPHA (4) = -1.930 PTO = 2294.667 PO = 62.000 R/PT = 2.253 Q = 392.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .0728 .1383
 .400 .0519
 .419 .0325
 .550 .0021
 .600 .0357
 .697 .1223
 .700 -.0201
 .725 .0066
 .750 -.0201
 .806 -.0279
 .832 .0011
 .850 -.0575
 .900 -.0489
 .950 -.0741
 .966 .0350

DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

MACH (1) = 3.002 ALPHA (5) = .090 P70 = 2294.667 PO = 62.000 R/PT = 2.253 Q = 392.889
 ANES 87-710 1A12C ON T1 S2 LOWER WING PRESSURE (0.92117)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6750	.7800	.8670
X/C						
.050				.0972		.1727
.400				.0705		
.419		.0350				
.550			.0096			.0590
.600						
.697	.0896					
.700						
.725			.0078	-.0126		
.750					-.0061	
.806		-.0236				
.832	-.0012					
.850			-.0535			
.900		-.0326			-.0108	
.950			-.0677			
.966	.0306					

MACH (1) = 3.002 ALPHA (6) = 2.070 P70 = 2294.667 PO = 62.000 R/PT = 2.253 Q = 392.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6750	.7800	.8670
X/C						
.090				.1094		.1999
.400				.0821		
.419		.0363				
.550			.0114			.0672
.600						
.697	.0676					
.700				-.0008		
.725			.0132		.0089	
.750						
.806		-.0214				
.832	.0013					
.850			-.0478			-.0051
.900		-.0539			-.0643	
.950						
.966	.0374					



DATE 05 DEC 74

TABULATED SOURCE DATA - (A12C (WING PRESSURES))

PAGE 521

MACH (1) = 3.002 ALPHA (1) = 4.070 PTO = 2294.667 PO = 62,000 R/FT = 2.253 Q = 592.669
 AMES 87-710 (A12C 01 T1 S2 LOWER WING PRESSURE) (LBZ117)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090				.1186		.2392
.400				.0888		
.419		.0295				
.550			.0252			.0927
.600						
.697	.0696					
.700				.0198		
.725			.0273			.0905
.750						
.806		-.0196				
.832	.0115			-.0147		.0075
.850			-.0510			
.900				-.0467		
.950						
.966	.0450					

MACH (1) = 3.002 ALPHA (8) = 6.060 PTO = 2294.667 PO = 62,000 R/FT = 2.253 Q = 592.669

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090				.1585		.2892
.400				.1061		
.419		.0434				
.550			.0346			.1223
.600						
.697	.0861					
.700			.0401			
.725			.0258			.0487
.750						
.806		.0059				
.832	.0153					
.850			.0013			.0250
.900			-.0392			
.950				-.0389		
.966	.0436					

TABULATED SOURCE DATA - (A12C WING PRESSURES)

DATE 05 DEC 74

(B2117)

AVES 87-710 A12C 01 T1 S2 LOWER WING PRESSURE

= 392.889

R/FT = 2.253

PO = 62.000

PTD = 2294.067

ALPHA (9) = 8.060

MACH (1) = 3.002

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050	.1796	.3324
.400	.1124	
.419		
.550	.0749	.1608
.600		
.697	.0826	
.725	.0237	.0840
.750		
.806	.0529	
.832	.0093	.0538
.850		
.900	.0250	
.950	-.0342	
.966		



AVES 87-710 1A12C CA T1 S2 LOWER WING PRESSURE 092118 (18 APR 74)

REFERENCE DATA

SREF = 2690.0700 SQ.FT. XREF = 993.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 SREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.499 ALPHA (1) = -7.760 PTO = 2303.000 PO = 30.000 R/F/T = 1.760 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7600	.8870
X/C						
.090				.0516	.0952	
.400				.0310		
.419		.0451				
.550			.0632			
.600					.0255	
.697	.1998					
.700			.0027			
.725			.0632		-.0278	
.806		.0052				
.832	.0036					
.850			-.0153			
.900		-.0316			-.0039	
.950			-.0354			
.966	-.0461					

MACH (1) = 3.499 ALPHA (2) = -9.770 PTO = 2303.000 PO = 30.000 R/F/T = 1.760 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7600	.8870
X/C						
.090				.0533	.1056	
.400				.0359		
.419		.0402				
.550			.0397			
.600					.0305	
.697	.1725					
.700			-.0028			
.725		.0556			-.0283	
.750						
.806		-.0030				
.832	.0019					
.850			-.0284			
.900		-.0338			-.0028	
.950			-.0463			
.967	-.0497					

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(0.82118)

AVES 87-710 1A12C ON T1 S2 LOWER WING PRESSURE

MACH (1) = 3.499 ALPHA (3) = -3.750 PTO = 2503.000 PO = 30.000 R/PT = 1.760 Q = 259.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.030 .0859 .1224
 .400 .0320
 .419 .0391
 .550 .0222
 .600 .0424
 .697 .1474
 .700 -.0077
 .725 .0097
 .750 -.0257
 .806 -.0074
 .832 .0036
 .850 -.0349
 .900 -.0452
 .950 -.0501
 .966 -.0670

MACH (1) = 3.499 ALPHA (4) = -1.770 PTO = 2503.000 PO = 30.000 R/PT = 1.760 Q = 259.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .0765 .1516
 .400 .0450
 .419 .0401
 .550 .0168
 .600 .0591
 .697 .1434
 .700 .0020
 .725 .0357
 .750 -.0186
 .806 -.0031
 .832 .0030
 .850 -.0350
 .900 -.0453
 .950 -.0529
 .966 -.0692



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-710 1A12C 01 T1 S2 LOWER WING PRESSURE (LBZ118)

MACH (1) = 3.499 ALPHA (5) = .280 PTO = 2303.000 PO = 30.000 R/PT = 1.760 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8970
X/C						
.050				.0781		.1733
.400				.0509		
.419		.0401				
.550			.0204			
.600						.0759
.697	.1340					
.700				.0080		
.725			.0346			
.750					-.0082	
.806		.0007				
.832	.0056					
.850			-.0295			.0243
.900		-.0437				
.950			-.0513			
.966	-.0670					

MACH (1) = 3.499 ALPHA (6) = 2.230 PTO = 2303.000 PO = 30.000 R/PT = 1.760 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8970
X/C						
.050				.1311		.2421
.400				.0380		
.419		.0296				
.550			.0271			
.600						.0816
.697	.1096					
.700			-.0071			
.725			.0293			
.750					-.0104	
.806		.0014				
.832	.0025					
.850			-.0322			.0244
.900		-.0436				
.950			-.0485			
.966	-.0664					

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A120 WING PRESSURES

REF 87-710 1A120 Q1 11 52 LOWER WING PRESSURE 0.82118'

MACH 1.15 3.499 ALPHA (8) = 4.245 PTO = 2303.000 PO = 30.000 R/FT = 1.760 Q = 259.000

SECTION 1 (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090	.1347	.2477			
.400	.0521				
.419	.0216				
.550	.0199				
.600					.1060
.697	.0964				
.700		.0642			
.725	.0462				
.750			.0070		
.806	.0030				
.832	-.0042				
.850		-.0262			.0396
.900	-.0317				
.950		-.0436			
.966	-.0653				

MACH (1) = 3.499 ALPHA (8) = 6.250 PTO = 2303.000 PO = 30.000 R/FT = 1.760 Q = 259.000

SECTION 1 (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090	.1495	.3210			
.400	.0826				
.419	.0140				
.550	.0347				.1393
.600					
.697	.0691				
.700		.0236			
.725	.0469			.0331	
.750					
.806	-.0041				
.832	-.0036				
.850		-.0126			.0620
.900		-.0376			
.950		-.0322			
.966	-.0619				



DATE 05 DE 4 TABULATED SOURCE DATA (A120 (R/W PRESSURES))

(L22118)

AVE. WING AREA = 0.105

WING 11 = 1.495 ALPHA 31 = 0.105 PTC = 2003.000 PO = 30.000 R/PY = 1.760 Q = 259.000

SECTION 1: 1000 WING

DEPENDENT VARIABLE CP

1/2 .2990 .4270 .5440 .6730 .7850 .8870

X/C

.050	.1713	.3682
.400	.0975	
.419		
.550	.0418	.1745
.600		
.697	.0325	
.700		
.721	.0440	.0819
.750		
.806	-.0063	
.832		
.890	-.0045	.0848
.900	-.0409	
.950	-.0235	
.966		

TABLED SOURCE DATA - 14120 (100 PRESSURES)

UB7121) (15 APR 74)

THE UNIVERSITY OF CHICAGO PRESS

REFERENCE DATA

SCS = 133,000 S.F., WGP = 133,000 IN.
 LGS = 133,000 IN., WGS = 133,000 IN.
 DGS = 133,000 IN., WDS = 133,000 IN.
 SCALE = .0190 SCALE

DETA	=	.000	POWER	=	1.000
CO-	=	25.860	SWPR	=	.826
AL	=	1.000	FLODER	=	.000

$$PACF(1) = 0.49, \quad PACF(2) = 0.70, \quad PACF(3) = 0.87, \quad PACF(4) = 0.97, \quad PACF(5) = 0.99$$

SECTION 1100107 WANG
DEPT OF ENVIRONMENTAL

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

X/C			
.050	.0506	.0513	
.400	.0430		
.419			
.550	.0441		
.600			
.697			
.700			
.725	.0544		
.750			
.806			
.832	.0070		
.890	.0559		
.900			
.950			
.966			

WACH (1) =	3.499	ALPHA (2) =	-5.790	PTO	=	2304.300	MO	=	30.100	R/FY	=	1.746	Q	=	239.300
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DEPENDENT VARIABLE: WING SECTION (1) ORBITER WING

Y/Y	X/Y	2990	4270	5340	6750	7800	8870
	X/C						
	.090				.0432		.1045
	.400				.0313		
	.419						
	.550	.0569					
	.600		.0324				.0303
	.697	.1312					
	.700				.0029		
	.725			.0373			
	.750					-.0165	
	.806	.0005					
	.832	.0302					
	.850						
	.900				-.0294		-.0025
	.950			-.0240			
	.950				-.0509		
	.966	.0739					

DATE 05 DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

(.97121)

WING (1) = 3.415 ALPHA (3) = -3.790 WING = 2304.300 PO = 30.100 R/F = 1.746 Q = 259.300

SECTION (1) WING

DEPENDENT VARIABLE CP

X/C .2990 .4270 .5340 .6750 .7800 .8870

X/C .090 .1299
.400 .0694
.419 .0673
.450 .0668
.500 .0395
.697 .0091
.700 .0302
.725 -.0087
.750
.806 .0081
.832 .0376
.850 -.0294
.900 -.0250
.950 -.0515
.996 .0870

WING (1) = 3.499 ALPHA (4) = -1.810 PTD = 2304.300 PO = 30.100 R/F = 1.746 Q = 259.300

SECTION (1) WING

DEPENDENT VARIABLE CP

X/C .2990 .4270 .5340 .6750 .7800 .8870

X/C .090 .1521
.400 .0809
.419 .0853
.450 .0723
.500 .0450
.697 .0669
.700 .0200
.725 .0313
.750 .0053
.806 .0204
.832 .0751
.850 -.0213
.900 -.0132
.950 -.0442
.996 .0755

TABLED SOURCE DATA (UNITED STATES)

0.0000

DESIGNATED WING PRESSURE

249.400

1.748 0

80.100

80.100

80.100

80.100

80.100

80.100

DESIGNATED WING PRESSURE

DESIGNATED WING PRESSURE

DESIGNATED WING PRESSURE

249.400 1.748 80.100 80.100 80.100 80.100 80.100 80.100

0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

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DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AVES 87-710 1A12C OR T1 LOWER WING PRESSURE (LBZ122) (16 APR 74)

REFERENCE DATA

REF = 2690.0000 SQ.FT. WARP = 953.0000 IN.
 REF = 1329.0000 IN. WARP = .0000 IN.
 REF = 1328.0000 IN. WARP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.499 ALPHA (1) = -7.730 PTO = 2302.667 PO = 30.000 R/FT = 1.810 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .0052 .0345
 .400 .0280
 .419 -.0506
 .550 -.0424
 .600
 .697 -.0195
 .700
 .725 -.0590
 .750 -.0282
 .806 -.0615
 .832 -.0901
 .850 -.0720
 .900 -.0774
 .950 -.0736
 .966 -.0845
 .0095
 -.0606
 -.0215

MACH (1) = 3.499 ALPHA (2) = -5.740 PTO = 2302.667 PO = 30.000 R/FT = 1.810 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .0052 .0574
 .400 .0214
 .419 -.0533
 .550 -.0429
 .600
 .697 -.0173
 .700
 .725 -.0600
 .750 -.0260
 .806 -.0571
 .832 -.0490
 .850 -.0763
 .900 -.0758
 .950 -.0774
 .966 -.0845
 .0020
 -.0595
 -.0160

DATE 14 DEC 74 TABULATED SOURCE DATA - (120 MING PRESSURES)

MACH (1) = 3.499 ALPHA (3) = -0.740 PTO = 2302.667 PO = 30.000 R/PT = 1.810 Q = 259.000
 (0.87122)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .0216 .0977
 .400 .0136
 .419 -.0539
 .550 -.0435
 .650 .0167
 .697 -.0036
 .700 -.0540
 .725 -.0205
 .750 -.0508
 .806 -.0506
 .832 -.0391
 .850 -.0763
 .900 -.0731
 .950 -.0769
 .966 -.0784

MACH (1) = 3.499 ALPHA (4) = -1.730 PTO = 2302.667 PO = 30.000 R/PT = 1.810 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .0374 .1380
 .400 .0015
 .419 -.0440
 .550 -.0331
 .600 .0358
 .697 .0041
 .700 -.0410
 .725 -.0117
 .750 -.0382
 .806 -.0431
 .832 -.0309
 .850 -.0660
 .900 -.0671
 .950 -.0758
 .966 -.0746



AVES 87-710 (A12C DT 1) LOWER WING PRESSURE (0.92122)

MACH (1) = 3.499 ALPHA (5) = .250 PTC = 2302.667 PO = 30.000 R/FT = 1.810 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.0668	.1740
.400	.0135	
.419		
.530	-.0341	
.600	-.0177	.0597
.697	.0184	
.700		
.725	-.0252	
.750	.0030	-.0230
.806	-.0309	
.832	-.0199	
.850	-.0351	.0140
.900	-.0573	
.950	-.0714	
.966	-.0724	

MACH (1) = 3.499 ALPHA (6) = 2.250 PTC = 2302.667 PO = 30.000 R/FT = 1.810 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.1055	.2188
.400	.0456	
.419		
.530	-.0210	
.600	-.0035	.0981
.697	.0375	
.700		
.725	-.0050	
.750	.0233	-.0017
.806	-.0155	
.832	-.0029	
.850		
.900	-.0404	.0093
.950	-.0420	-.0578
.966	-.0625	

MACH (1) = 3.499 ALPHA (1) = 4.250 PTO = 2302.667 PO = 30.000 R/PT = 1.810 Q = 259.000
 AVES 87-710 (A12C OR T1 LOWER WING PRESSURE) (LB/IN²)

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.030	.1429	.2837
.400	.0787	
.419		
.530	-.0030	
.600	.0210	.1190
.697	.0694	
.700		
.725	.0211	
.750	.0609	.0265
.806	.0161	
.832	.0025	
.850		
.900	-.0170	.0495
.950	-.0399	
.966	-.0631	

MACH (1) = 3.499 ALPHA (1) = 6.220 PTO = 2302.667 PO = 30.000 R/PT = 1.810 Q = 259.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.030	.1823	.3131
.400	.1159	
.419		
.530	.0097	
.600	.0370	.1628
.697	.1496	
.700		
.725	.0475	
.750	.0692	.0539
.806	.0359	
.832	.0169	
.850		
.900	-.0001	.0729
.950	.0021	
.966	-.0262	
	-.0543	



CASE 05 DEC 74

WING DATA - (AIRCRAFT PRESSURES)

WING (1) = 5.495 ALPHA (9) = 6.240 PTD = 2502.667 PO = 30.000 R/PT = 1.610 0 2 259.000

(0.2122)

LOWER WING PRESSURE

SECTION (1) COEFFICIENT WING

DEPENDENT VARIABLE CP

Y/C .2590 .4270 .5340 .6750 .7500 .8870

X/C

.050			.2554		.3911
.400			.1590		
.419		.0343			
.530			.0759		.2053
.600					
.697	.1776				
.700			.0789		
.725					
.750		.1005		.0698	
.806	.0775				
.832	.0288				
.850			.0250		.1012
.900		.0381			
.950			-.0028		
.966	-.0463				

TABLE 10 SOURCE DATA - 1A12 (LOW PRESSURES)

0.27125) (18 APR 64)

AVES 87.710 1A12E 01 TH LOWER WING PRESSURE

PARAMETRIC DATA

DATA = .000 POWER = 3.000
 UPR = 23.860 CLEVEL = 1.000
 SUMMER = .000

REFERENCE DATA

SECF = 2490.0000 SQ.FT. XMRP = 993.0700 IN.
 LREF = 1328.0000 IN. YMRP = .0000 IN.
 BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

MACH (1) = 3.499 ALPHA (1) = -7.75 PTO = 2297.556 PO = 30.000 R/FT = 1.743 Q = 258.776

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6750 .7500 .8870

X/C
 .090
 .400
 .419
 .930
 .800
 .697
 .700
 .725
 .750
 .808
 .832
 .890
 .900
 .940
 .946
 -.0016
 -.0295
 -.0595
 -.0488
 -.0211
 -.0322
 -.0648
 -.0725
 -.0772
 -.0803
 .0351
 -.0091
 -.0591
 -.0833
 -.0746
 -.0729
 -.0772
 -.0803

MACH (1) = 3.499 ALPHA (2) = -5.740 PTO = 2297.556 PO = 30.000 R/FT = 1.743 Q = 258.776

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6750 .7500 .8870

X/C
 .090
 .400
 .419
 .930
 .800
 .697
 .700
 .725
 .750
 .808
 .832
 .890
 .900
 .940
 .946
 .0066
 -.0224
 .79
 -.0329
 -.0135
 -.0326
 -.0812
 -.0502
 -.0744
 -.0739
 -.0755
 .0574
 .0021
 -.0580
 -.0137
 -.0755

DATA OF TEST 74 TABULATED SOURCE DATA - (AIRFLOW PRESSURES)

MACH (1) = 3.499 ALPHA (A) = -3.740 PTO = 2297.556 PO = 30.000 R/FT = 1.743 Q = 258.776
 AXES X Y Z (1) (2) (3) LOWER WING PRESSURE (LB/IN²)

SECTION 1 (OBTURATOR) DEPENDENT VARIABLE CP

X	Y	Z	CP
.040	.040	.040	.0534
.400	.400	.400	-.0143
.419	.419	.419	-.0596
.550	.550	.550	-.0330
.600	.600	.600	.0158
.697	.697	.697	-.0547
.700	.700	.700	-.0547
.724	.724	.724	-.0260
.750	.750	.750	-.0509
.806	.806	.806	-.0546
.832	.832	.832	-.0750
.840	.840	.840	-.0690
.870	.870	.870	-.0766
.880	.880	.880	-.0771

MACH (1) = 3.499 ALPHA (A) = -1.770 PTO = 2297.556 PO = 30.000 R/FT = 1.743 Q = 258.776

SECTION 1 (OBTURATOR) DEPENDENT VARIABLE CP

X	Y	Z	CP
.040	.040	.040	.0391
.400	.400	.400	.0012
.419	.419	.419	-.0529
.550	.550	.550	-.0393
.600	.600	.600	.0348
.697	.697	.697	-.0390
.700	.700	.700	-.0390
.724	.724	.724	-.0147
.750	.750	.750	-.0417
.806	.806	.806	-.0491
.832	.832	.832	-.0349
.840	.840	.840	-.0667
.870	.870	.870	-.0607
.880	.880	.880	-.0764

10/15/75 DEC 74

TABLED SOURCE DATA - LOWER WING PRESSURE

REF: 540

MACH (1) = 3.499 ALPHA (6) = .240 PTO = 2297.556 PO = 30.000 R/PT = 1.743 Q = 258.778
 VES 87-710 14120 IN 7 LOWER WING PRESSURE 0.001251

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .000
 .400 .006
 .419 .0417
 .550 -.0078
 .600 .0878
 .697 .0349
 .700 -.0080
 .725 .0191
 .750 -.0027
 .808 -.0178
 .832 -.0083
 .850 -.0408
 .900 -.0397
 .950 -.0588
 .966 -.0669

MACH (1) = 3.499 ALPHA (6) = 2.200 PTO = 2297.556 PO = 30.000 R/PT = 1.743 Q = 258.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .000
 .400 .006
 .419 .0417
 .550 -.0078
 .600 .0878
 .697 .0349
 .700 -.0080
 .725 .0191
 .750 -.0027
 .808 -.0178
 .832 -.0083
 .850 -.0408
 .900 -.0397
 .950 -.0588
 .966 -.0669



TABULATED SOURCE DATA - 1 (1000000 PRESSURES)

WATER 3.45% ALPHA (3) = 0.172 3.45% 209.514 DO = 30.000 2.57 = 1.743 2 = 2.58 1/8

(0.82125)

AVES 87-710 14120 11 1 LOWER WING PRESSURE

SECTION 11 (1000000 PRESSURES)

SECTION 11 (1000000 PRESSURES)

WING 1.050 1.420 1.540 1.670 1.700 1.800

WING 1.050 1.420 1.540 1.670 1.700 1.800

WING 1.050 1.420 1.540 1.670 1.700 1.800

WING 1.050 1.420 1.540 1.670 1.700 1.800

WING 1.050 1.420 1.540 1.670 1.700 1.800

WING 1.050 1.420 1.540 1.670 1.700 1.800

WING 1.050 1.420 1.540 1.670 1.700 1.800

WING 1.050 1.420 1.540 1.670 1.700 1.800

WING 1.050 1.420 1.540 1.670 1.700 1.800

WING 1.050 1.420 1.540 1.670 1.700 1.800

WING 1.050 1.420 1.540 1.670 1.700 1.800

WING 1.050 1.420 1.540 1.670 1.700 1.800

WING 1.050 1.420 1.540 1.670 1.700 1.800

WING 1.050 1.420 1.540 1.670 1.700 1.800

WING 1.050 1.420 1.540 1.670 1.700 1.800

WING 1.050 1.420 1.540 1.670 1.700 1.800

WING 1.050 1.420 1.540 1.670 1.700 1.800

WING 1.050 1.420 1.540 1.670 1.700 1.800

WING 1.050 1.420 1.540 1.670 1.700 1.800

WING 1.050 1.420 1.540 1.670 1.700 1.800

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DETA	=	.000	POWER	=	9,000
OPP	=	29,860	GWEAL	=	1,000
GLUCKER	=	.000			

COAST GUARD DATA

Year	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100																			
Population	1,000,000	1,050,000	1,100,000	1,150,000	1,200,000	1,250,000	1,300,000	1,350,000	1,400,000	1,450,000	1,500,000	1,550,000	1,600,000	1,650,000	1,700,000	1,750,000	1,800,000	1,850,000	1,900,000	1,950,000	2,000,000	2,050,000	2,100,000	2,150,000	2,200,000	2,250,000	2,300,000	2,350,000	2,400,000	2,450,000	2,500,000	2,550,000	2,600,000	2,650,000	2,700,000	2,750,000	2,800,000	2,850,000	2,900,000	2,950,000	3,000,000	3,050,000	3,100,000	3,150,000	3,200,000	3,250,000	3,300,000	3,350,000	3,400,000	3,450,000	3,500,000	3,550,000	3,600,000	3,650,000	3,700,000	3,750,000	3,800,000	3,850,000	3,900,000	3,950,000	4,000,000	4,050,000	4,100,000	4,150,000	4,200,000	4,250,000	4,300,000	4,350,000	4,400,000	4,450,000	4,500,000	4,550,000	4,600,000	4,650,000	4,700,000	4,750,000	4,800,000	4,850,000	4,900,000	4,950,000	5,000,000	5,050,000	5,100,000	5,150,000	5,200,000	5,250,000	5,300,000	5,350,000	5,400,000	5,450,000	5,500,000	5,550,000	5,600,000	5,650,000	5,700,000	5,750,000	5,800,000	5,850,000	5,900,000	5,950,000	6,000,000	6,050,000	6,100,000	6,150,000	6,200,000	6,250,000	6,300,000	6,350,000	6,400,000	6,450,000	6,500,000	6,550,000	6,600,000	6,650,000	6,700,000	6,750,000	6,800,000	6,850,000	6,900,000	6,950,000	7,000,000	7,050,000	7,100,000	7,150,000	7,200,000	7,250,000	7,300,000	7,350,000	7,400,000	7,450,000	7,500,000	7,550,000	7,600,000	7,650,000	7,700,000	7,750,000	7,800,000	7,850,000	7,900,000	7,950,000	8,000,000	8,050,000	8,100,000	8,150,000	8,200,000	8,250,000	8,300,000	8,350,000	8,400,000	8,450,000	8,500,000	8,550,000	8,600,000	8,650,000	8,700,000	8,750,000	8,800,000	8,850,000	8,900,000	8,950,000	9,000,000	9,050,000	9,100,000	9,150,000	9,200,000	9,250,000	9,300,000	9,350,000	9,400,000	9,450,000

EXPLANATION OF VARIATION

Page	Page	Page	Page
1	2	3	4
5	6	7	8
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97	98	99	100

X/C	Y/C
.050	.0323
.100	-.0069
.150	-.0342
.200	
.250	-.0442
.300	-.0348
.350	
.400	-.0157
.450	-.0334
.500	-.0615
.550	
.600	-.0641
.650	-.0342
.700	-.0756
.750	-.0800
.800	-.0757
.850	
.900	-.0400
.950	
1.000	-.0228

$$\begin{aligned} \text{MAC}_{\text{Ave}}(1) &= 3.499 & \text{Al}(\text{OH})_3(2) &= -5.750 \\ & & \text{pH} &= 2.907, 4.44 \\ & & \text{pH} &= 30, 000 \\ & & \text{pH} &= 1.162 \\ & & &= 259,556 \end{aligned}$$
[illegible]

	.2990	.4270	.5540	.6750	.7800	.8870
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1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

AMES RP-710 TABLE 3 - LOWER WING PRESSURE

0.82124

WING PLAN AREA = 3.436 ALPHA (1) = 3.750 MTO = 2307.444 PQ = 30.000 R/PY = 1.762 Q = 259.556

SECTION 1 - LOWER WING DEPENDENT VARIABLE CP

Y/B .2590 .4270 .5340 .6750 .7800 .8870

X/C

.090					
.400			.0025		.0024
.419			-.0001		
.590		-.0034			
.600					.0003
.697	.0043				
.725			-.0027		
.730		-.0035			
.808				-.0019	
.832	-.0046				
.840			-.0074		
.900		-.0009			-.0124
.910			-.0046		
.966	-.0060				

WING (1) = 3.496 ALPHA (4) = -1.760 MTO = 2307.444 PQ = 30.000 R/PY = 1.762 Q = 259.556

SECTION 1 - UPPER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7800 .8870

X/C

.090					
.400			.0344		.1341
.419			-.0020		
.590		-.0466			
.600			-.0066		.0332
.697	-.0011				
.725			-.0427		
.730		-.0137			
.808				-.0444	
.832	-.0339				
.840			-.0009		
.900		-.0693			-.0037
.910			-.0096		
.966	-.0602				



TABLETED SOURCE DATA - (1012) WING PRESSURES

WING: 1012 3.499 ALPHA (0) = 2.100 PTO = 2507.444 PO = 30.000 P/PT = 1.762 Q = 259.556

AVE. RATIO: 10120 DB. M. LOWER WING PRESSURE

SECTION 1 (LOWER WING) DEPENDENT VARIABLE CP

CP	25% C	42% C	53% C	67% C	74% C	88% C
090				.0830		.1737
400				.0189		
415						
420						
430						
440						
450						
460						
470						
480						
490						
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990						
1000						

WING: 1012 3.499 ALPHA (0) = 2.100 PTO = 2507.444 PO = 30.000 P/PT = 1.762 Q = 259.556

SECTION 1 (LOWER WING) DEPENDENT VARIABLE CP

CP	25% C	42% C	53% C	67% C	74% C	88% C
090				.1049		.2161
400				.0406		
415						
420						
430						
440						
450						
460						
470						
480						
490						
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970						
980						
990						
1000						

WING 1 = 3.459 ALPHA (1) = 0.210 PTD = 2307.444 PD = 30.000 R/PT = 1.762 Q = 859.556
 SECTION (1) ORBITER WING

SECTION (1) ORBITER WING

1/1 .2990 .4270 .5340 .6730 .7600 .8970

1/2 .0190 .0190 .0190 .0190 .0190 .0190

1/3 .0190 .0190 .0190 .0190 .0190 .0190

1/4 .0190 .0190 .0190 .0190 .0190 .0190

1/5 .0190 .0190 .0190 .0190 .0190 .0190

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DATE 09 DEC 74

1922

AMF 88-110 1A12C 08 T LOWER WING PRESSURE

250	+ 2507 444	80	=	30,000	R/F ²	=	1.762	0	=	259.556
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DEPENDENT VARIABLE CP

	1960	1970	1980	1990
Population	1,000	1,400	1,530	1,670
Area (sq. miles)	1.0	1.0	1.0	1.0
Density (per sq. mile)	1,000	1,400	1,530	1,670

24

	.3775	
	.2527	
	.1537	

.1537

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- .0052

- .0543

REFERENCE DATA

SCALE = 100.0000 SQFT. XREF = 145.0000 IN.
 XREF = 100.0000 IN. XREF = 100.0000 IN.
 XREF = 100.0000 IN. XREF = 100.0000 IN.
 SCALE = 100.0000 IN.

PARAMETRIC DATA

MACH (1) = 3.499 ALPHA (1) = 17.700 PTO = 2316.333 PO = 30.333 R/FT = 1.784 Q = 280.556
 XREF = 100.0000 SQFT. XREF = 100.0000 IN. XREF = 100.0000 IN. XREF = 100.0000 IN.
 XREF = 100.0000 IN. XREF = 100.0000 IN. XREF = 100.0000 IN. XREF = 100.0000 IN.

SECTION (1) 1100BITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090				-.0146		.0231
.400				-.0395		
.419						
.550		-.0673				
.600			-.0613			-.0134
.697	-.0177					
.770				-.0673		
.725			-.0417			
.750					-.0663	
.806		-.0694				
.832	-.0580					
.850			-.0814			-.0279
.900		-.0787				
.950			-.0787			
.963	-.0803					

MACH (1) = 3.499 ALPHA (2) = -5.780 PTO = 2316.333 PO = 30.333 R/FT = 1.784 Q = 280.556

SECTION (1) 1100BITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090				-.0018		.0615
.400				-.0292		
.419						
.550		-.0639				
.600			-.0591			-.0050
.697	-.0180					
.770			-.0645			
.725			-.0370			
.750					-.0635	
.806		-.0645				
.832	-.0542					
.850			-.0801			-.0211
.900		-.0753				
.950			-.0801			
.966	-.0789					

TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

WING (1) = 3.499 ALPHA (3) = -3.740 PTD = 2316.333 PO = 30.333 R/FT = 1.784 Q = 260.556
 AVES 8-1-70 1A12C 04 TH LOWER WING PRESSURE (0.87127)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.0134	.0968
.400	-.0195	
.419	-.0680	
.550	-.0534	.0090
.600		
.697	-.0095	
.700		
.725	-.0274	-.0578
.750		-.0575
.806	-.0566	
.832	-.0501	
.850		-.0799
.900	-.0718	-.0155
.950		-.0821
.966	-.0799	

WING (1) = 3.499 ALPHA (4) = -1.800 PTD = 2316.333 PO = 30.333 R/FT = 1.784 Q = 260.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.0362	.1342
.400	-.0011	
.419	-.0468	
.550	-.0538	.0339
.600		
.697	.0036	
.700		
.725	-.0127	-.0415
.750		-.0410
.806	-.0432	
.832	-.0311	
.850		-.0665
.900	-.0658	.0005
.950		-.0782
.966	-.0750	

TABULATED SOURCE DATA - INLET WING PRESSURES

(.87127)

AVES 67-710 INLET 04 M LOWER WING PRESSURE

MACH (1) = 3.499 ALPHA (6) = .210 PTO = 2316.333 PO = 30.333 R/FT = 1.734 Q = 260.150

SECTION (1) 100% WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8670

X/C

.050 .0612 .1740
 .400 .0212
 .419 -.0367
 .550 -.0209
 .600 .0189
 .697 .0169
 .700 .0228
 .725 .0164
 .750 -.0206
 .806 -.0334
 .832 -.0197
 .850 -.0751
 .900 -.0547
 .950 -.0703
 .966 -.0715

MACH (1) = 3.499 ALPHA (6) = 2.180 PTO = 2316.333 PO = 30.333 R/FT = 1.734 Q = 260.150

SECTION (1) 100% WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8670

X/C

.050 .1100 .2247
 .400 .0443
 .419 -.0137
 .550 .0032
 .600 .0902
 .697 .0261
 .700 -.0037
 .725 .0277
 .750 .0017
 .806 -.0110
 .832 -.0009
 .850 -.0399
 .900 -.0432
 .950 -.0574
 .966 -.0617



DATE 02 DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

MACH (1) = 0.450 ALPHA (1) = 4.200 PTO = 2316.333 PO = 50.333 R/PY = 1.784 Q = 260.556
 AVE'S 47-710 1A12C 04 T1 LOWER WING PRESSURE (LBZ127)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050				.1492		.2675
.400				.0890		
.419		.0041				
.550			.0286			.1234
.600						
.697	.1056			.0261		
.700						
.725			.0689		.0303	
.750						
.806	.0199					
.832	.0081					
.850				-.0146		.0514
.900			-.0119			
.950				-.0374		
.966	-.0568					

MACH (1) = 0.459 ALPHA (1) = 6.190 PTO = 2316.333 PO = 50.333 R/PY = 1.784 Q = 260.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050				.1937		.3315
.400				.1255		
.419		.0214				
.550			.0469			.1713
.600						
.697	.1547			.0524		
.700						
.725			.0964		.0609	
.750						
.806	.0409					
.832	.0274					
.850				.0004		.0788
.900			.0069			
.950				-.0219		
.966	-.0462					

DATE 08 JUL 74 TABULATED SOURCE DATA - FA120WING PRESSURES

0.92127

AVES 87-710 FA120WING LOWER WING PRESSURE

WING 111 1.499 ALPHA (9) = 8.210 PTC = 2316.333 PO = 30.113 R/T = 1.784 Q = 260.

SECTION 111081TER WING COEFFICIENTS TABLE CP

Y/B	.2990	.4270	.5340	.6750	.7350	.8870
MAC						
.030				.2737		.3990
.400				.1670		
.419						
.550		.0346		.0732		.2143
.600						
.697	.1871					
.700				.0840		
.725			.1095		.0957	
.750						
.806		.0743				
.832	.0382					
.850			.0256			.1033
.900		.0436				
.930			-.0039			
.966	-.0453					



AVES 87-710 TA12C 01 71 51 WBS.5 PLMS LO WING PRS

(R92128) (18 APR 74)

REFERENCE DATA

SRPF = 2690.0000 GULFT. XMRP = 543.0000 IN.
 YSRF = 1326.0000 IN. XMRP = .0000 IN.
 BSRF = 1326.0000 IN. XMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 GIMBAL = 1.000 RUDDER = .000

WACH (1) = 3.002 ALPHA (1) = -7.880 PTO = 2301.400 PO = 62.000 R/F/T = 2.293 Q = 394.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7900 .8870

X/C

.090 .0327 .0613
 .400 .0173
 .419 .0424
 .550 .0330
 .600
 .697 .1649
 .700
 .725 .0241
 .750
 .806 -.0227
 .832 .0007
 .850
 .900 -.0510
 .950 -.0704
 .966 .0233

WACH (1) = 3.002 ALPHA (2) = -5.880 PTO = 2301.400 PO = 62.000 R/F/T = 2.293 Q = 394.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7900 .8870

X/C

.090 .0424 .0871
 .400 .0331
 .419 .0374 .0105
 .550
 .600
 .697 .1560
 .700
 .725 .0043
 .750
 .806 -.0258
 .832 .0047
 .850
 .900 -.0575
 .950 -.0310
 .966 .0270



DATE - DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

WACH (1) = 3.002 ALPHA (3) = -3.660 PTO = 2301.400 PO = 62.000 R/FT = 2.293 Q = 204.000
 CASE 87-710 1-12-74 1 51 453.5 4-15 LO WING CMC 0.81281

SECTION (1) CRIBTER WING DEPENDENT VARIABLE CP

Y/B	X/C	.2990	.4270	.5340	.6730	.7800	.8870
.090	.0623						
.400	.0543						
.419	.0359						
.530	.0288						
.600							
.697	.1181						
.700							
.725							
.750							
.806							
.832							
.850							
.900							
.950							
.966							

WACH (1) = 3.002 ALPHA (4) = -1.660 PTO = 2301.400 PO = 62.000 R/FT = 2.293 Q = 204.000

SECTION (1) CRIBTER WING DEPENDENT VARIABLE CP

Y/B	X/C	.2990	.4270	.5340	.6730	.7800	.8870
.090	.1237						
.400	.0661						
.419	.0343						
.530	.0160						
.600							
.697	.0900						
.700							
.725							
.750							
.806							
.832							
.850							
.900							
.950							
.966							



DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.002 ALPHA (5) = .120 PTO = 2301.400 PO = 62.000 R/PT = 2.293 Q = 394.000
 AVE 3 87.710 1A12C 01 11 51 143.5 PLMS LO WING PMS (LB/M2/1)

SECTION 1108B1111R WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .050 .1480 .1699
 .400 .0766
 .419 .0472
 .450 .0314
 .600 .0689
 .697 .0376
 .700 .0016
 .725 .0001
 .730 .0001
 .806 .0301
 .832 .0066
 .850 .0385
 .900 .0592
 .950 .0710
 .966 .0303

MACH (1) = 3.002 ALPHA (6) = 2.120 PTO = 2301.400 PO = 62.000 R/PT = 2.293 Q = 394.000

SECTION 1108B1111R WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .050 .1374 .2136
 .400 .0830
 .419 .0483
 .450 .0282
 .600 .0612
 .697 .0359
 .700 .0020
 .725 .0059
 .730 .0045
 .806 .0266
 .832 .0095
 .850 .0341
 .900 .0563
 .950 .0631
 .966 .0372



DATE 05 / 1 / 1 TABULATED SOURCE DATA - (UNRECORDED MEASURES)

AVES 07-010 INJEC OF T-1 SI NO 3.9 PLUS LO WING PMS (0.87128)

MACH (1) = 3.002 ALPHA (1) = 4.150 PTO = 2301.400 PO = 62.000 R/PT = 2.293 Q = 394.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .0000 .4270 .5340 .6730 .7600 .8870

X/C
 .050 .140 .2470
 .400 .0436 .0416 .1120
 .419 .0482 .0171 .0250
 .500 .1117 .0151 .0109
 .600 .0164 .0473 .0523
 .700 .0232 .0406
 .800 .0164 .0164
 .900 .0164 .0164
 .950 .0164 .0164
 .966 .0164 .0164

MACH (1) = 3.002 ALPHA (1) = 4.150 PTO = 2301.400 PO = 62.000 R/PT = 2.293 Q = 394.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .0000 .4270 .5340 .6730 .7600 .8870

X/C
 .050 .1773 .2955
 .400 .1229 .0913
 .419 .0673 .1429
 .500 .0510 .0584 .0527
 .600 .0169 .0076 .0376
 .700 .0366 .0455 .0430
 .800 .0164 .0164
 .900 .0164 .0164
 .950 .0164 .0164
 .966 .0164 .0164



DATE 05 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

WING (1) = 3.002 ALPHA (9) = 8.140 PTO = 2501.400 PO = 62.000 P/FT = 2.293 Q = 394.000
 AVE S 87-710 I A12C CR T1 S1 WES.5 PLMS LO WAG PMS (0.2128)

SECTION (1) 106-118 WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7800	.8870
X/C						
.050				.1874		.3521
.400				.1576		
.419		.0765				
.550			.0927			.1623
.600						
.637	.0459			.0860		
.700			.0169			
.725					.1239	
.750						
.806		.0331				
.832	.0661			.0072		.0668
.850			-.0267			
.900				-.0337		
.950						
.966	.0672					

MAP LAYER SOURCE DATA - 1A12C (MILK PRESSURES)

4-87-110 1420 00 31 453.3 44 55 10 446 475
(-87131) 16 402 14

NAVJAG 200-100

GENERAL = .000 POWER = .000
SPECIAL = 1.000 CLOSER = .000

ALL = 1.000
OVER = 1.000

PARAMETRIC DATA

[illegible]

[Faint, illegible handwritten notes]

[illegible]

$\frac{1}{2} \times 1.746 = 0.873$
 $0.873 \times 250.222 = 218.64$

SECRET

1000

419 .582

0197

9000' - .00008

Question

6610'-

1117
-0417

POSTAGE WILL BE PAID BY ADDRESSEE

1	2000	4270	5340	6730	7600	8670
---	------	------	------	------	------	------

10

	.0250	.400
1968-70	1.00	1.00
1971-72	1.00	1.00
1973-74	1.00	1.00
1975-76	1.00	1.00
1977-78	1.00	1.00
1979-80	1.00	1.00
1981-82	1.00	1.00
1983-84	1.00	1.00
1985-86	1.00	1.00
1987-88	1.00	1.00
1989-90	1.00	1.00
1991-92	1.00	1.00
1993-94	1.00	1.00
1995-96	1.00	1.00
1997-98	1.00	1.00
1999-00	1.00	1.00
2001-02	1.00	1.00
2003-04	1.00	1.00
2005-06	1.00	1.00
2007-08	1.00	1.00
2009-10	1.00	1.00
2011-12	1.00	1.00
2013-14	1.00	1.00
2015-16	1.00	1.00
2017-18	1.00	1.00
2019-20	1.00	1.00
2021-22	1.00	1.00
2023-24	1.00	1.00
2025-26	1.00	1.00
2027-28	1.00	1.00
2029-30	1.00	1.00
2031-32	1.00	1.00
2033-34	1.00	1.00
2035-36	1.00	1.00
2037-38	1.00	1.00
2039-40	1.00	1.00
2041-42	1.00	1.00
2043-44	1.00	1.00
2045-46	1.00	1.00
2047-48	1.00	1.00
2049-50	1.00	1.00
2051-52	1.00	1.00
2053-54	1.00	1.00
2055-56	1.00	1.00
2057-58	1.00	1.00
2059-60	1.00	1.00
2061-62	1.00	1.00
2063-64	1.00	1.00
2065-66	1.00	1.00
2067-68	1.00	1.00
2069-70	1.00	1.00
2071-72	1.00	1.00
2073-74	1.00	1.00
2075-76	1.00	1.00
2077-78	1.00	1.00
2079-80	1.00	1.00
2081-82	1.00	1.00
2083-84	1.00	1.00
2085-86	1.00	1.00
2087-88	1.00	1.00
2089-90	1.00	1.00
2091-92	1.00	1.00
2093-94	1.00	1.00
2095-96	1.00	1.00
2097-98	1.00	1.00
2099-00	1.00	1.00
2101-02	1.00	1.00
2103-04	1.00	1.00
2105-06	1.00	1.00
2107-08	1.00	1.00
2109-10	1.00	1.00
2111-12	1.00	1.00
2113-14	1.00	1.00
2115-16	1.00	1.00
2117-18	1.00	1.00
2119-20	1.00	1.00
2121-22	1.00	1.00
2123-24	1.00	1.00
2125-26	1.00	1.00
2127-28	1.00	1.00
2129-30	1.00	1.00
2131-32	1.00	1.00
2133-34	1.00	1.00
2135-36	1.00	1.00
2137-38	1.00	1.00
2139-40	1.00	1.00
2141-42	1.00	1.00
2143-44	1.00	1.00
2145-46	1.00	1.00
2147-48	1.00	1.00
2149-50	1.00	1.00
2151-52	1.00	1.00
2153-54	1.00	1.00
2155-56	1.00	1.00
2157-58	1.00	1.00
2159-60	1.00	1.00
2161-62	1.00	1.00
2163-64	1.00	1.00
2165-66	1.00	1.00
2167-68	1.00	1.00
2169-70	1.00	1.00
2171-72	1.00	1.00
2173-74	1.00	1.00
2175-76	1.00	1.00
2177-78	1.00	1.00
2179-80	1.00	1.00
2181-82	1.00	1.00
2183-84	1.00	1.00
2185-86	1.00	1.00
2187-88	1.00	1.00
2189-90	1.00	1.00
2191-92	1.00	1.00
2193-94	1.00	

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-0252

6630

DATE 09 DEC 74

VARIABLE SOURCE DATA - TA12C (WING PRESSURES)

PAGE 559

WACH (1) = 3.499 ALPHA (3) = -3.720 PTO = 2236.667 PO = 30.000 R/PT = 1.746 Q = 258.222
 AVEG P/TIC TA12C ON TI SI W3.5 PLUS CO MAG RMS 0.271311

SECTION (1) DIVER WING DEPENDENT VARIABLE CP

Y/B	.2590	.4270	.5340	.6750	.7460	.8870
X/C						
.090				.0335		.1145
.400				.0315		
.419		.0804				
.590			.0351			
.600						.0365
.697	.1235					
.770				.0056		
.725			.0302			
.750						
.806		.0016				-.0145
.832	.0033					
.870				-.0276		
.900			-.0320			.0052
.950				-.0343		
.960	.0061					

WACH (1) = 3.499 ALPHA (4) = -1.740 PTO = 2236.667 PO = 30.000 R/PT = 1.746 Q = 258.222

SECTION (1) DIVER WING DEPENDENT VARIABLE CP

Y/B	.2590	.4270	.5340	.6750	.7460	.8870
X/C						
.090				.0670		.1371
.400				.0711		
.419		.0650				
.590			.0378			
.600						.0325
.697	.0737					
.770			.0155			
.725			.0246			
.750						
.806		-.0027				-.0053
.832	-.0005					
.870				-.0265		
.900			-.0365			.0135
.950						-.0327
.960	.0049					



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES -710 1A12C 01 T1 S1 WE3.5 PLMS LO WING PMS (LBZ131)

MACH (1) = 3.499 ALPHA (7) = 4.22J PTD = 2296.667 PO = 30.000 R/FT = 1.746 Q = 256.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .1568 .2712
 .400 .0771
 .419 .0488
 .550 .0279 .1044
 .600 .0285
 .697 .0286
 .700 .0312 .0182
 .725 .0126
 .750 .0121
 .806 .0112
 .832 .0369 .0373
 .850 .0342
 .900 .0203
 .950
 .966

MACH (1) = 3.499 ALPHA (8) = 6.270 PTD = 2296.667 PO = 30.000 R/FT = 1.746 Q = 256.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .1557 .3221
 .400 .0924
 .419 .0406
 .550 .0310 .1393
 .600 .0279
 .697 .0581
 .700 .0499 .0439
 .725 .0157
 .750 .0157 .0581
 .806 .0157
 .832 .0157
 .850 .0157
 .900 .0157
 .950 .0157
 .966 .0157

AVES 87-710 1A12C CM T1 S1 UPPER WING PRESSURE (LB/2032) (12 APR 74)

REFERENCE DATA

SWEP = 2690.0000 SQ.FT. XWRP = 953.0000 IN.
 LREF = 1325.0000 IN. YWRP = .0000 IN.
 PRCP = 1325.0000 IN. ZWRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 MPSRA = .000
 POWER = .000 C1MBAL = 1.000
 RUDDER = .000

MACH (1) = 2.499 BETA (1) = -7.270 PTO = 2313.444 PO = 136.000 R/F/T = 4.015 Q = 593.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 .0042 .0982 .1395
 .250 -.1062
 .400 -.1460
 .419 -.0959
 .550 -.1246 -.1630
 .600 -.1262
 .700 -.1639
 .725 -.1348
 .806 -.0813
 .850 -.1496
 .900 -.0898 -.1526
 .951 -.0375

MACH (1) = 2.499 BETA (2) = -6.240 PTO = 2313.444 PO = 136.000 R/F/T = 4.015 Q = 593.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 .0192 .1115 .1430
 .250 -.1256
 .400 -.1429
 .419 -.0983
 .550 -.1304 -.1667
 .600 -.1255
 .700 -.1716
 .725 -.1367
 .806 -.0839
 .850 -.1563
 .900 -.0907
 .951 -.0377

DATE 09 DEC 74 TABULATED SOURCE DATA - (A120) (WING PRESSURES)

WING (1) = 2.499 BETA (3) = -4.180 P.T.O. = 2313.444 P.O. = 173.000 R/F.T. = 4.015 Q = 593.000

WING (1) = 2.499 BETA (3) = -4.180 P.T.O. = 2313.444 P.O. = 173.000 R/F.T. = 4.015 Q = 593.000

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8870

X/C

.050 .0523 .1490 .2179
.250 -.1313
.400 -.1389
.419 -.1028
.550 -.1409 -.1875
.600
.700 -.1737
.725 -.1429
.806 -.0822
.850 -.1875
.900 -.0943
.941 -.0356

WING (1) = 2.499 BETA (4) = -2.120 P.T.O. = 2313.444 P.O. = 173.000 R/F.T. = 4.015 Q = 593.000

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8870

X/C

.050 .1130 .1354 .2680
.250 -.1188
.400 -.1292
.419 -.1162
.550 -.1545 -.1601
.600 -.1161
.700 -.1780
.725 -.1507
.806 -.0825
.850 -.1757
.900 -.0971
.941 -.1494

WING (1) = 2.499 BETA (5) = -0.070 P.T.O. = 2313.444 P.O. = 136.000 R/F.T. = 4.015 Q = 593.000

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8870

X/C

.050 .1447 .2075 .3051
.250 -.1067
.400 -.1268
.419 -.1501
.550 -.1581 -.1572



AVES 87-710 TA12C ON T1 S1 UPPER WING PRESSURE (LB2032)

MACH (1) = 2.499 BETA (5) = -.070

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .800 -.1083
 .700 -.1757
 .725 -.1608
 .806 -.1004
 .850 -.1757
 .900 -.0977
 .951 -.1386
 .0340

MACH (1) = 2.499 BETA (6) = 1.990 PTO = 2313.444 PO = 136.000 R/PT = 4.015 Q = 593.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .050 .1704 .2519 .3405
 .250 -.0949
 .400 -.1208
 .419 -.1286
 .550 -.1543
 .600 -.0991
 .700 -.1740
 .725 -.1634
 .806 -.0982
 .850 -.1747
 .900 -.1019
 .951 -.1254
 -.0501

MACH (1) = 2.499 BETA (7) = 4.050 PTO = 2313.444 PO = 136.000 R/PT = 4.015 Q = 593.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .050 .2193 .2655 .3811
 .250 -.0796
 .400 -.1042
 .419 -.1263
 .550 -.1586
 .600 .1399
 .700 -.0916
 .725 .1640
 .806 .1642
 .850 .1642
 .900 .1642
 .951 .1642

DATA 25 50 74 TABULATED SOURCE DATA - 1X12C WING PRESSURES

AVES 87-710 1-127 1-1 31 UPPER WING PRESSURE (LB/IN²)

MACH (1) = 2.459 BETA (2) = 4.015

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.900 -.1015 -.1140
.951 -.0967

MACH (1) = 2.459 BETA (8) = 6.100 P/C = 211.144 PO = 136.000 R/FT = 4.015 Q = 593.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.050 .2607 .3280 .4277
.250 -.0676
.400 -.0915
.419 -.1207
.550 -.1347 -.1323 -.0838
.600
.700 -.1575
.725 -.1820
.806 -.0908
.850 -.1596
.900 -.0931 -.1044
.951 -.0446

MACH (1) = 2.499 BETA (9) = 7.140 P/C = 2313.444 PO = 136.000 R/FT = 4.015 Q = 593.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.050 .2782 .3500 .4521
.250 -.0606
.400 -.0907
.419 -.1148
.550 -.1502 -.1290
.600
.700 -.1551
.725 -.1601
.806 -.0870
.850 -.1553
.900 -.0673 -.0969
.951 -.0336

AIRCRAFT 1010 10120 ON T1 S1 UPPER WING PRESSURE (082033) 12 APR 74

REFERENCE DATA

WING = 2650.0000 SQ.FT. WING = 993.0000 IN.
 WING = 1328.0000 IN. WING = .0000 IN.
 WING = 1328.0000 IN. WING = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 MPRA = .000
 POWER = 1.000 OPR = 31.260
 SPMR = .916 CMBAL = 1.000
 RUDDER = .000

MACH (1) = 2.499 BETA (1) = -7.270 PTO = 2315.444 PO = 136.000 R/FY = 2.381 Q = 593.444

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8870

X/C

.090 -.0178 .0916 .1348
 .250 -.1076
 .400 -.1498
 .419 -.0980
 .550 -.1262 -.1661
 .600 -.1286
 .700 -.1668
 .725 -.1373
 .806 -.0899
 .850 -.1517
 .900 -.0937 -.1551
 .951 -.0412

MACH (1) = 2.499 BETA (2) = -6.240 PTO = 2315.444 PO = 136.000 R/FY = 2.381 Q = 593.444

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8870

X/C

.090 .0051 .1069 .1404
 .250 -.1278
 .400 -.1472
 .419 -.1003
 .550 -.1314 -.1720
 .600 -.1272
 .700 -.1747
 .725 -.1377
 .806 -.0870
 .850 -.1603
 .900 -.0942 -.1532
 .951 -.0405

TABULATED SOURCE DATA - (CALCULATED PRESSURES)

AMES 17-710 (0.00000) 1.000000 WING PRESSURE (0.00000)

MACH (1) = 2.499 BETA (5) = -4.180 PTO = 2315.444 PO = 136.000 R/FT = 2.361 Q = 593.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C	.050	.2473	.1414	.2141
.050				
.250				
.400				
.419				
.550				
.600				
.700				
.725				
.806				
.850				
.900				
.951				

MACH (1) = 2.499 BETA (4) = -2.120 PTO = 2315.444 PO = 136.000 R/FT = 2.361 Q = 593.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C	.020	.0973	.1348	.2653
.020				
.250				
.400				
.419				
.550				
.600				
.700				
.725				
.806				
.850				
.900				
.951				

MACH (1) = 2.499 BETA (5) = -.060 PTO = 2315.444 PO = 136.000 R/FT = 2.361 Q = 593.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C	.050	.1427	.2093	.3037
.050				
.250				
.400				
.419				
.550				



DATE 03 DEC 74 TAIL WING SOURCE DATA - 1A12C WING PRESSURES

WING STATION 1A12C ON T1 S1 UPPER WING PRESSURE (LB/2033)

MACH (1) = 2.499 BETA (5) = -0.060

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/E .4270 .5340 .6730 .8870

X/C
 .609
 .700
 .725
 .809
 .840
 .870
 .951
 .1764
 -.1572
 -.1764
 -.0976
 -.1306
 -.10362

MACH (1) = 2.499 BETA (6) = 2.000 PTC = 2315.444 PO = 136.000 R/PT = 2.381 Q = 593.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/E .4270 .5340 .6730 .8870

X/C
 .090
 .250
 .400
 .419
 .550
 .600
 .700
 .725
 .806
 .850
 .900
 .951
 .1709
 -.0951
 -.1208
 -.1292
 -.1558
 -.1540
 -.1736
 -.1609
 -.0978
 -.1748
 -.1014
 -.1251
 .2526
 .3427
 -.1208
 -.1540
 -.10976
 -.1748
 -.1251

MACH (1) = 2.499 BETA (7) = 4.050 PTC = 2315.444 PO = 136.000 R/PT = 2.381 Q = 593.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/E .4270 .5340 .6730 .8870

X/C
 .050
 .250
 .400
 .419
 .550
 .600
 .700
 .725
 .806
 .850
 .900
 .951
 .2172
 -.0793
 -.1040
 -.1223
 -.1502
 -.1404
 -.1543
 .2828
 -.1040
 -.1404
 -.1543
 .3828

DATE 11/11/74 TIME 10:00 AM (12 APR 74)

00000000 (12 APR 74)

WING AREA 10.000000 (12 APR 74)

PARAMETRIC DATA

ALPHA = .000
POWER = 1.000
CINEL = 1.000
RUDDER = .000

WING AREA 10.000000 (12 APR 74)

WING AREA 10.000000 (12 APR 74)

WING AREA 10.000000 (12 APR 74)

DEPENDENT VARIABLE CP

WING AREA 10.000000 (12 APR 74)

WING AREA 10.000000 (12 APR 74)

WING AREA 10.000000 (12 APR 74)

WING AREA 10.000000 (12 APR 74)

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WING AREA 10.000000 (12 APR 74)

WING AREA 10.000000 (12 APR 74)

WING AREA 10.000000 (12 APR 74)

WING AREA 10.000000 (12 APR 74)

VARIABLE SOURCE DATA - 14120 (NO PRESSURES)

(082036)

AREA 87-110 14120 IN 51 UPPER WING PRESSURE

MACH (1) = 2.499 BETA (3) = 4.100 WING PO = 2190.778 PO = 128.556 R/F/T = 2.953 Q = 561.778

DEPENDENT VARIABLE CP

SECTION (1) UPPER WING

X/C .4270 .5340 .6750 .8870

Y/C
.050 .0498 .1360 .2143
.250 -.1342
.400 -.1142
.419 -.1097
.550 -.1464 -.1777 -.1222
.700 .1661
.725 -.1464
.800 -.0689
.840 .1175
.900 -.1010 -.1516
.951 -.0414

MACH (1) = 2.499 BETA (4) = -0.120 PWO = 2190.778 QW = 128.556 R/F/T = 2.953 Q = 561.778

DEPENDENT VARIABLE CP

SECTION (1) UPPER WING

X/C .4270 .5340 .6750 .8870

Y/C
.050 .1039 .1334 .2643
.250 -.1226
.470 -.1316
.419 -.1198
.550 -.1602 -.1636 -.1157
.600 .1104
.725 -.1344
.800 -.0870
.850 -.1770
.900 -.1037 -.1502
.951 -.0348

MACH (1) = 2.499 BETA (5) = -0.070 PWO = 2190.778 PO = 128.556 R/F/T = 2.953 Q = 561.778

DEPENDENT VARIABLE CP

SECTION (1) UPPER WING

X/C .4270 .5340 .6750 .8870

Y/C
.050 .1422 .2042 .3041
.250 -.1052
.400 -.1312
.419 -.1284
.550 -.1599 -.1421

100

155

[illegible]

1. *Phragmites australis* (Cav.) Trin. ex Steud.

2000

100

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32

$\frac{1}{2} \times 100 = 50$

100

100

100

10

10

10

2

100

$\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & i \\ 0 & 1 \end{pmatrix}$

১০) $\frac{1}{x^2} = x^{-2}$ এর ক্ষেত্রে $\frac{d}{dx} x^{-2} = -2x^{-3} = -\frac{2}{x^3}$

2200

2

2

UNCLASSIFIED SOURCE DATA - NAME AND PRESSURE

ANES R-2710 (A1200) 11.1 JPOE WING PRES. JFE (UB 2034)

MACH (1) = 2.459 BETA (1) = 4.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .2571 .5242 .4236
.250 -.0711
.400 .1074
.419 -.1204
.550 -.1575 -.1574
.600 -.0831
.700 -.1601
.725 -.1652
.800 -.0957
.850 -.1618
.900 -.1017
.951 -.1044

MACH (1) = 2.459 BETA (1) = 4.100 PTO = 2190.778 PO = 2190.778 R/PT = 2.953 Q = 561.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .2571 .5242 .4236
.250 -.0711
.400 .1074
.419 -.1204
.550 -.1575 -.1574
.600 -.0831
.700 -.1601
.725 -.1652
.800 -.0957
.850 -.1618
.900 -.1017
.951 -.1044

MACH (1) = 2.459 BETA (1) = 7.130 PTO = 2190.778 PO = 2190.778 R/PT = 2.953 Q = 561.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .2783 .5483 .4474
.250 -.0828
.400 -.0948
.419 -.1138
.550 -.1548 -.1543
.600 -.0784
.700 -.1604
.725 -.1620
.800 -.0934
.850 -.1607
.900 -.0938
.951 -.0424



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A18C (WING PRESSURES)

0.020391 (12 APR 74)

AVES 67-710 1A18C ON T1 SL UPPER WING PRESSURE

PARAMETRIC DATA

ALPHA = .000 MPSRA = .000
POWER = .000 CINCAL = 1.000
RUDDER = .000

EXPERIMENTAL DATA

SRFZ = 2690.0000 IN. FT. XMRP = 103.0000 IN.
LREF = 1724.0000 IN. XMRP = 1.0000 IN.
LFO = 1528.0000 IN. XMRP = 400.0000 IN.
PC E = 0.00 SCALE

MACH (1) = 3.002 BETA (1) = 0.250 PTD = 2308.889 PO = 63.000 R/T = 3.035 Q = 395.000

DEPENDENT VARIABLE CP

SECTION 1 (UPPER WING)

Y/B .4270 .5340 .6730 .8970

X/C
.050 -1.0275 .0753 .1514
.250 -1.0327 -1.0945
.400 -1.0537
.513 -1.074 -1.129 -1.061
.550
.600 -1.134
.700
.725 -1.1017
.806 -1.0884
.850 -1.1305
.900 -1.0906 -1.1130
.951 -1.0531

MACH (1) = 3.002 BETA (2) = -0.250 PTD = 2308.889 PO = 63.000 R/T = 3.035 Q = 395.000

DEPENDENT VARIABLE CP

SECTION 2 (LOWER WING)

Y/B .4270 .5340 .6730 .8970

X/C
.050 .0255 .1009 .1317
.250 -1.0462
.400 -1.0946
.513 -1.1146 -1.1285 -1.0642
.550
.600 -1.1362
.700
.725 -1.1114
.806 -1.0909
.850 -1.1337 -1.1069
.900 -1.0982
.951 -1.0504

WING (1) = 2.002 BETA (3) = 4.150 PTO = 2308.889 PO = 63.000 R/FT = 3.035 Q = 395.000 (0.82039)

WING (2) = 2.002 BETA (3) = 4.150 PTO = 2308.889 PO = 63.000 R/FT = 3.035 Q = 395.000 (0.82039)

MACH (1) = 3.002 BETA (5) = .030 PTO = 2308.889 PO = 63.000 R/FT = 3.035 Q = 395.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.030	.0449	.1107	.2272
.250	-.0822		
.400		-.0485	
.419	-.0948		
.550		-.1131	-.1240
.600			-.0515
.700		-.1373	
.725	-.1136		
.806	-.0681		
.850		-.1326	
.900	-.0992		-.1005
.951	-.0488		

MACH (1) = 3.002 BETA (4) = -2.060 PTO = 2308.889 PO = 63.000 R/FT = 3.035 Q = 395.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.030	.0952	.1360	.2733
.250	-.0704		
.400		-.0816	
.419	-.0988		
.550		-.1149	-.1161
.600			-.0520
.700		-.1315	
.725	-.1161		
.806	-.0948		
.850		-.1287	
.900	-.1118		-.1059
.951	-.0585		

MACH (1) = 3.002 BETA (5) = .030 PTO = 2308.889 PO = 63.000 R/FT = 3.035 Q = 395.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.030	.1536	.2166	.3185
.250	-.0593		
.400		-.0737	
.419	-.1016		
.550		-.1131	-.1111

CASE 03-10-14 TABULATED SOURCE DATA - (A120) (1) (2) PRESSURES

AUG 87-710 1A120 (1) (1) 51 UPPER WING PRESSURE (0.0039)

MACH (1) = 3.002 BETA (7) = 4.210

SECTION 1 (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .3276 .3986 .4953
.250 -.0061
.400 -.0382
.419 -.0930
.550 -.0831
.600 -.0099
.700 -.1084
.725 -.1043
.806 -.0887
.850 -.1096
.900 -.0917
.951 -.0492

MACH (1) = 3.002 BETA (8) = 4.310 P/D = 2308.669 PO = 63.000 R/FT = 3.035 Q = 395.000

SECTION 1 (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .3068 .2748 .4652
.250 -.0147
.400 -.0443
.419 -.0959
.550 -.0991
.600 -.0870
.700 -.1107
.725 -.1057
.806 -.0905
.850 -.1143
.900 -.0960
.951 -.0542

MACH (1) = 3.002 BETA (9) = 7.350 P/D = 2308.669 PO = 63.000 R/FT = 3.035 Q = 395.000

SECTION 1 (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .3276 .3986 .4953
.250 -.0061
.400 -.0382
.419 -.0930
.550 -.0831
.600 -.0099
.700 -.1084
.725 -.1043
.806 -.0887
.850 -.1096
.900 -.0917
.951 -.0492

DATE 05 DEC 74 TABULATED (20 DEGREES DATA - 1A12C WING PRESSURES)

(UP/DOWN) (12 APR 74)

AVES 97.10 1A12C ON T1 S1 UPPER WING PRESSURE

PARAMETRIC DATA

ALPHA = .000 MPSRA = .000
POWER = 1.000 CTR = 26.860
CONPR = .768 GIMBAL = 1.000
RUDDER = .000

= 367.333

DEPENDENT DATA

WING = 2890.0000 (0.57) WING = 533.0000 IN.
WING = 1328.0000 IN. WING = 1000.0000 IN.
WING = 1328.0000 IN. WING = 400.0000 IN.
SCALE = 10000 SCALE

WING (1) = 1.002 BETA (1) = -7.280 PTC = 2263.778 PO = 61.111 R/PT = 1.945 Q = 367.333

SECTION 1 (10 DEGREES WING) DEPENDENT VARIABLE CP

Y/B .427C .534C .675C .897C

X/C
.090 -.0377 .0677 .1237
.240 -.0829
.400 -.1007
.419 -.0919
.550 -.1075 -.1292
.600 -.1273
.700 -.1289
.725 -.0996
.806 -.0874
.850 -.1150
.900 -.0846
.931 -.1071
.951 -.1043

WING (1) = 1.002 BETA (2) = -6.240 PTC = 2263.778 PO = 61.111 R/PT = 1.945 Q = 367.333

SECTION 1 (10 DEGREES WING) DEPENDENT VARIABLE CP

Y/B .427C .534C .675C .897C

X/C
.090 -.0025 .0915 .1226
.240 -.0325
.400 -.0963
.419 -.0834
.550 -.1163 -.1277
.600 -.0748
.700 -.1274
.725 -.1021
.806 -.0903
.850 -.1109
.900 -.0842
.931 -.1016
.951 -.1049

DATE 05 DEC 74 TABULATED SOURCE DATA - 14120 (WING PRESSURES)

AVES 87-710 14120 04 71 01 UPPER WING PRESSURE (UPR2040)

MACH (1) = 3.002 BETA (5) = -4.150 PTO = 2263.778 PO = 61.111 R/PT = 1.945 Q = 387.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .090 .0099 .1438 .2207
 .250 -.0885
 .400 -.0890
 .419 -.0828
 .550 -.1167 -.1259
 .600 -.1296
 .700 -.1061
 .725 -.0863
 .850 -.1223
 .900 -.0896
 .951 -.0490

MACH (1) = 3.002 BETA (4) = 2.060 PTO = 2263.778 PO = 61.111 R/PT = 1.945 Q = 387.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .090 .0695 .1390 .2751
 .250 -.0745
 .400 -.0630
 .419 -.0847
 .550 -.1159 -.1132
 .600 -.0324
 .700 -.1332
 .725 -.1066
 .850 -.0835
 .900 -.1275
 .951 -.1063

MACH (1) = 3.002 BETA (5) = .000 PTO = 2263.778 PO = 61.111 R/PT = 1.945 Q = 387.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .090 .1556 .2207 .3169
 .250 -.0579
 .400 -.0730
 .419 -.0863
 .550 -.1115 -.1112



DATE 09 DEC 71 TABULATED SOURCE DATA - 14120 WING PRESSURES

AVES BY 1/2 14120 Q1 Y1 S1 UPPER WING PRESSURE (UP-LOAD)

MACH (1) = 3.002 BETA (5) = .070

SECTION (1) UPPER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.000 .0412
.100 -.1231
.200 -.1064
.300 -.0796
.400 -.1259
.500 .1042
.600 -.0936
.700
.800
.900
1.000

MACH (1) = 3.002 BETA (6) = 2.120 PTO = 2263.778 PO = 61.111 R/P/T = 1.945 Q = 387.333

SECTION (1) UPPER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.000 .1825 .2709 .3628
.100 -.0425 -.0663
.200 .400
.300 .419
.400 -.0838
.500 -.1068
.600 -.1020
.700 -.0317
.800
.900
1.000

MACH (1) = 3.002 BETA (7) = 4.210 PTO = 2263.778 PO = 61.111 R/P/T = 1.945 Q = 387.333

SECTION (1) UPPER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.000 .2559 .3199 .4021
.100 -.0273
.200 .400
.300 .419
.400 -.0855
.500 -.1038
.600 -.0966
.700
.800
.900
1.000

DATE 15 DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

AVES 97-710 1A120 CM T1 11 UPPER WING PRESSURE (LB/INCH)

MACH (1) = 3.002 BETA (7) = 4.210

SECTION 1108BITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
.900 -.1061 -.0773
.951 -.0650

MACH (1) = 3.002 BETA (8) = 6.310 PTC = 2263.778 PO = 61.111 R/PT = 1.945 Q = 367.333

SECTION 1108BITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
.090 .3080 .3782 .4679
.290 -.0117
.400 -.0429
.419 -.0827
.550 -.0980 -.0879
.600 -.0130
.700 -.1098
.725 -.0965
.806 -.0882
.850 -.1135
.900 -.0959 -.0657
.951 -.0530

MACH (1) = 3.002 BETA (9) = 7.350 PTC = 2263.778 PO = 61.111 R/PT = 1.945 Q = 367.333

SECTION 1108BITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
.090 .3263 .3969 .4952
.290 -.0042
.400 -.0378
.419 -.0802
.550 -.0948 -.0814
.600 -.0077
.700 -.1048
.725 -.0968
.806 -.0888
.850 -.1103
.900 -.0698 -.0593
.951 -.0499



DATE 01 DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

WING REF-710 (0120 01 71 51 UPPER WING PRESSURE) (002043) (12 APR 74)

REFERENCE DATA

REF = 2690.0000 SQ.FT. AREA = 985.0000 IN.
 REF = 1328.0000 IN. AREA = 10000.0000 IN.
 REF = 1328.0000 IN. AREA = 400.0000 IN.
 SCALE = .0150 SCALE

PARAMETRIC DATA

ALPHA = .000 MPRA = .000
 POWER = 1.000 OPP = 14.400
 SMPT = .412 GIBAL = 1.000
 RUDDER = .000

MACH (1) = 3.002 BETA (1) = -7.290 PTO = 2170.444 PO = 59.000 R/FT = 2.276 Q = 371.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0086 .0746 .1482
 .295 -.0008
 .400 -.0066
 .419 -.0413
 .590 -.1061 -.1264
 .600 -.0727
 .700 -.1306
 .725 -.0978
 .808 -.0844
 .850 -.1290
 .900 -.0462 -.1148
 .991 -.0900

MACH (1) = 3.002 BETA (2) = -6.240 PTO = 2170.444 PO = 59.000 R/FT = 2.276 Q = 371.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0218 .1041 .1251
 .250 -.0462
 .400 -.0901
 .419 -.0870
 .590 -.1133 -.1246
 .600 -.0734
 .700 -.1329
 .725 -.1058
 .808 -.0493
 .850 -.1283
 .900 -.0970
 .991 -.0900

DATA 5 17 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

AGES 87-710 1A12C 1A 71 1A UPPER WING PRESSURE (LBZ043)

WACH (1) = 3.002 BETA (3) = 4.150 PTO = 2170.444 PO = 59.000 R/PY = 2.276 Q = 371.556

DEPENDENT VARIABLE CP

SECTION (1) UPPER WING

Y/B .4270 .5340 .6750 .8670

X/C
 .090 .0351 .1434 .2195
 .250 -.0828
 .400 -.0848
 .419 -.0635
 .550 -.1148 -.1222 -.0566
 .600
 .700 -.1325
 .725 -.1084
 .808 -.0839
 .850 -.1294
 .900 -.0974 -.1059
 .951 -.0488

WACH (1) = 3.002 BETA (4) = -2.060 PTO = 2170.444 PO = 59.000 R/PY = 2.276 Q = 371.556

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8670

X/C
 .090 .0909 .1592 .2744
 .250 -.0672
 .400 -.0799
 .419 -.0870
 .550 -.1130 -.1157 -.0929
 .600
 .700 -.1302
 .725 -.1093
 .808 -.0828
 .850 -.1283
 .900 -.1093 -.1079
 .951 -.0924

WACH (1) = 3.002 BETA (5) = .050 PTO = 2170.444 PO = 59.000 R/PY = 2.276 Q = 371.556

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8670

X/C
 .090 .1541 .2193 .3144
 .250 -.0552
 .400 -.0702
 .419 -.0683
 .550 -.1098 -.1094



WING AREA = 1.12 BETA = 0.002

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MACH (1) = 3.002 BETA (P) = 4.210

MACH (1) = 3.002 BETA (P) = 4.210

(0.0000)

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.900 -.0000
.951 -.0019

MACH (1) = 3.002 BETA (P) = 4.210 PTO = 2170.444 PO = 59.000 R/PY = 2.276 Q = 371.556

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.050 .3085 .5770 .4654
.250 -.0092
.400 -.0417
.419 -.0632
.550 -.0989 -.0852
.600 -.1077
.725 -.0985
.808 -.0878
.890 -.1111
.900 -.0983
.951 -.0551

MACH (1) = 3.002 BETA (P) = 7.350 PTO = 2170.444 PO = 59.000 R/PY = 2.276 Q = 371.556

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.050 .3286 .4003 .4654
.250 -.0040
.400 -.0349
.419 -.0481
.550 -.0955 -.0795
.600 -.1062
.725 -.1039
.808 -.0878
.890 -.1077
.900 -.0921
.951 -.0501

DATE OF CALC: 11/11/74 NO. OF DATA: 14127 NO. OF PRESSURES:

ALPHA: (12 APR 74)

ANES: 41.41 10127 0.75 51.0000 WING PRESSURE

PARAMETRIC DATA

ALPHA = .000 MPSPA = .000
POWER = 1.000 OPR = 41.000
SEVER = 1.150 GAMBAL = 1.000
BUOBER = .000

WING (1) = 3.000 BETA (1) = -7.250 PTD = 2417.364 PD = 65.545 P/PT = 1.749 Q = 413.818

DEPENDENT DATA

SAFE = 2890.0000 LIFT = 345.0000 IN.
WING = 1328.0000 IN. WING = 1328.0000 IN.
LIFT = 1328.0000 IN. WING = 400.0000 IN.
SAFE = 2890.0000

WING (1) = 3.000 BETA (1) = -7.250 PTD = 2417.364 PD = 65.545 P/PT = 1.749 Q = 413.818

DEPENDENT VARIABLE CP

WING (1) = 3.000 BETA (1) = -7.250 PTD = 2417.364 PD = 65.545 P/PT = 1.749 Q = 413.818

WING (1) = 3.000 BETA (1) = -7.250 PTD = 2417.364 PD = 65.545 P/PT = 1.749 Q = 413.818

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DEPENDENT VARIABLE CP

WING (1) = 3.000 BETA (1) = -7.250 PTD = 2417.364 PD = 65.545 P/PT = 1.749 Q = 413.818

WING (1) = 3.000 BETA (1) = -7.250 PTD = 2417.364 PD = 65.545 P/PT = 1.749 Q = 413.818

TABULATED SOURCE DATA - (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100)

WING (1) = 3.002 BETA (5) = -4.150 PTO = 2417.364 PO = 65.545 R/FT = 1.749 Q = 413.818
(UBZ044)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CO

Y/B .4270 .5340 .6730 .8870

X/C
.090 .0000 .1415 .2204
.250 -.0886
.400 -.0683
.419 -.0796
.550 -.1140 -.1241 -.0586
.600
.700 -.1282
.725 -.1021
.802 -.0825
.850
.900 -.0842
.951 -.0368

WING (1) = 3.002 BETA (4) = -2.080 PTO = 2417.364 PO = 65.545 R/FT = 1.749 Q = 413.818

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
.090 .0588 .1429 .2770
.250 -.0756
.400 -.0824
.419 -.0803
.550 -.1137 -.1165 -.0529
.600
.700 -.1279
.725 -.1017
.806 -.0690
.870 -.1203
.900 -.1035
.951 -.0480

WING (1) = 3.002 BETA (5) = .040 PTO = 2417.364 PO = 65.545 R/FT = 1.749 Q = 413.818

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
.090 .1511 .2222 .3181
.250 -.0585
.400 -.0715
.419 -.0816
.550 -.1110 -.1086



DATA ON DEC 10 REGULATED SOURCE DATA = (AIRFLOW PRESSURES)

(UBZ044)

AVES 97-710 14122 CM T1 S1 UPPER WING PRESSURE

MACH (1) = 3.002 BETA (5) = .040

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.600 -.0421
.700 -.1240
.725 -.1035
.808 -.0957
.850 -.1215
.900 -.1025
.951 -.0948
.991 -.0623

MACH (1) = 3.002 BETA (6) = 2.130 PTO = 2417.364 PO = 65.545 R/FT = 1.749 Q = 413.818

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.050 .1824 .2725 .3628
.250 -.0426
.400 -.0675
.419 -.0814
.550 -.1051
.600 -.1082
.700 -.1253
.725 -.1020
.806 -.0948
.850 -.1195
.900 -.1024
.951 -.0874
.991 -.0651

MACH (1) = 3.002 BETA (7) = 4.210 PTO = 2417.364 PO = 65.545 R/FT = 1.749 Q = 413.818

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.050 .2564 .3213 .4036
.250 -.0268
.400 -.0518
.419 -.0809
.550 -.1029
.600 -.0922
.700 -.1153
.725 -.0998
.806 -.1146
.850 -.1146
.900 -.1146
.951 -.1146
.991 -.1146

TABLE 1. TABULATED SOURCE DATA - (1) 100% WING PRESSURE

(100% WING PRESSURE)

AVES 87-710 (1) 100% WING PRESSURE

MACH (1) = 3.002 BETA (8) = 4.310

SECTION 1 (100% WING)

Y/B .4270 .5340 .6730 .8870

X/C .970 -1019 -10760

.951 -10594

MACH (1) = 3.002 BETA (8) = 4.310 PTO = 2417.364 PO = 65.545 R/PT = 1.749 Q = 413.818

SECTION 1 (100% WING) DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C .090 .3099 .3756 .4675

.290 -0.114 -0.0427

.400 .419 -0.0777 -0.0960 -0.0854 -0.0147

.550 .600 .700 .725 -0.0664 -0.1066

.806 -0.0633 .850 -0.1102

.900 -0.0926 -0.0644

.951 -0.0485

MACH (1) = 3.002 BETA (9) = 7.350 PTO = 2417.364 PO = 65.545 R/PT = 1.749 Q = 413.818

SECTION 1 (100% WING) DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C .090 .3311 .4033 .4959

.290 -0.0023 -0.0372

.400 .419 -0.0748 -0.0930 -0.0797 -0.0112

.550 .600 .700 .725 -0.0958 -0.1027

.806 -0.0620 .850 -0.1081

.900 -0.0463 -0.0578

.951 -0.0490



DATE 05 DEC 74 TABULATED SOURCE DATA - (A1200000 PRESSURES)

PTO = 2311.222 PTO = 2311.222 PTO = 2311.222 PTO = 2311.222

WACH (1) = 3.499 BETA (3) = -4.300 PTO = 2311.222 PTO = 2311.222 PTO = 2311.222 PTO = 2311.222

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.050 .0633 .1220 .2018
.250 -.0440
.400 -.1502
.419 -.0794
.550 -.0836 -.0910
.600 -.0809
.700 -.0567
.725 -.0821
.808 -.0767
.850 -.0992
.900 -.0932
.951 -.0761

WACH (1) = 3.499 BETA (4) = -2.200 PTO = 2311.222 PTO = 2311.222 PTO = 2311.222 PTO = 2311.222

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.050 .0602 .1476 .2076
.250 -.0348
.400 -.0436
.419 -.0784
.550 -.0769 -.0856
.600 -.0084
.700 -.0997
.725 -.0834
.808 -.0803
.850 -.0981
.900 -.0910
.951 -.0728

WACH (1) = 3.499 BETA (5) = -.010 PTO = 2311.222 PTO = 2311.222 PTO = 2311.222 PTO = 2311.222

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.050 .1468 .2090 .3310
.250 -.0179
.400 -.0326
.419 -.0800
.550 -.0767 -.0765



DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 97-710 1A12C C1 T1 S1 UPPER WING PRESSURE (UB 2047)

MACH (1) = 3.499 BETA (5) = -.010

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B .4270 .5340 .6730 .8870

X/C

.600 .0083
.700 -.0834
.725 -.0834
.806 -.0827
.850 -.0954
.900 -.0694
.951 -.0637

MACH (1) = 3.499 BETA (6) = 2.170 PTO = 2311.222 PO = 30.000 R/FT = 2.395 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B .4270 .5340 .6730 .8870

X/C

.090 .1843 .2701 .3754
.250 -.0021 -.0218
.400
.419 -.0794
.550 -.0696 -.0736 .0145
.600
.700 -.0926
.725 -.0818
.806 -.0805
.850 -.0932
.900 -.0845
.951 -.0729

MACH (1) = 3.499 BETA (7) = 4.350 PTO = 2311.222 PO = 30.000 R/FT = 2.395 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B .4270 .5340 .6730 .8870

X/C

.050 .2574 .3266 .4394
.250 .0116
.400 -.0082
.419 -.0776
.550 -.0680 -.0832
.600
.700 -.0828
.725 -.0790
.806 -.0762
.950 -.0656



TABULATED SOURCE DATA - 11120 LBS. PRESSURES

(0.2047)

AVES 97-110 11120 LB. TO 01 UPPER WING PRESSURE

MACH (1) = 3.499 BETA (7) = 4.330

SECTION (1) UPPER WING DEPENDENT VARIABLE

Y/B .4270 .5340 .6750 .8870

X/C
.900 -.0790 -.0422
.951 -.0745

MACH (1) = 3.499 BETA (8) = 6.540 P/M = 2311.222 P/O = 30.000 P/FY = 2.395 Q = 260.000

SECTION (1) UPPER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .3166 .5693 .9069
.250 .0279 .0005
.400
.419 -.0735
.550 -.0626 -.0540 .0413
.600
.700 -.0769
.725 -.0769
.806 -.0756
.890 -.0823
.900 -.0741 -.0364
.951 -.0675

MACH (1) = 3.499 BETA (9) = 7.650 P/M = 2311.222 P/O = 30.000 P/FY = 2.395 Q = 260.000

SECTION (1) UPPER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090 .3475 .4077 .5499
.280 .0356
.400 .0087
.419 -.0702
.550 -.0587 -.0474 .0512
.600
.700 -.0719
.725 -.0719
.806 -.0702
.890 -.0774
.900 -.0703 -.0316
.951 -.0636



AVES 97-710 (A120 C1 7) S1 UPPER WING PRESSURE (JUN 68) (12 APR 74)

REFERENCE DATA

SPOT = 2090.0000 SQ.FT. XMRP = 953.0000 IN.
 LREF = 1328.0000 IN. WMRP = .0000 IN.
 SPOT = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 MPSPA = .000
 POWER = 1.000 CPE = 13.170
 SFCPR = .458 G1MBAL = 1.000
 RUDDER = .000

MACH (1) = 3.499 BETA (1) = -7.660 PTO = 2175.556 PO = 28.689 R/PT = 1.734 Q = 244.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.4270	.5340	.6750	.8870
X/C				
.050		-.0308	.0433	.1288
.250		-.0591		
.400			-.0453	
.419		-.0556		
.550			-.0604	
.600				-.0055
.700			-.0610	
.725			-.0323	
.736		-.0562		
.850			-.0604	
.900		-.0598		-.0386
.951		-.0369		

MACH (1) = 3.499 BETA (2) = -6.560 PTO = 2175.556 PO = 28.689 R/PT = 1.734 Q = 244.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.4270	.5340	.6750	.8870
X/C				
.050		-.0141	.0726	.1317
.250		-.0668		
.400			-.0547	
.419		-.0804		
.550			-.0744	
.600				-.0191
.700			-.0779	
.725			-.0651	
.808		-.0698		
.850			-.0785	
.900		-.0703		-.0562
.951		-.0488		

AMES 87-710 14120 11 31 FREE WING PRESSURE (UE, 2048)

MACH (1) = 3.499 BETA (5) = -4.380 PTO = 2175.556 PO = 28.889 R/FT = 1.734 Q = 244.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C

.050 .0499 .1231 .2077
 .250 -.0499
 .400 -.0490
 .419 -.0826
 .550 -.0899 -.0889
 .600 -.0924
 .725 -.0704
 .808 -.0755
 .850 -.0924
 .900 -.0880
 .951 -.0553

MACH (1) = 3.499 BETA (4) = -2.200 PTO = 2175.556 PO = 28.889 R/FT = 1.734 Q = 244.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C

.050 .0784 .1486 .2097
 .250 -.0375
 .400 -.0432
 .419 -.0587
 .550 -.0607 -.0683
 .600 -.0085
 .725 -.0704
 .808 -.0766
 .850 -.0952
 .900 -.0646
 .951 -.0826

MACH (1) = 3.499 BETA (5) = -0.020 PTO = 2175.556 PO = 28.889 R/FT = 1.734 Q = 244.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C

.050 .1496 .2116 .3357
 .250 -.0175
 .400 -.0309
 .419 -.0603
 .550 -.0777 -.0776

DATA ON SECTION 11 - THE SAME SOURCE DATA - (1120 WING PRESSURES)

VALUES AT P10 P120 ON T1 S1 UPPER WING PRESSURE (0.348)

MACH (1) = 3.499 BETA (5) = -.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .6870

X/C .000 .0077

.P00 -.0958

.P25 -.0686

.P50 -.0612

.P75 -.0552

.P90 -.0448

.P95 -.0619

MACH (1) = 3.499 BETA (6) = 2.170 PTO = 2175.556 PC = 28.889 R/F1 = 1.734 Q = 244.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .6870

X/C

.050 .1836 .2683 .3759

.250 -.0009

.400 -.0178

.419 -.0827

.550 -.0708 -.0758

.600 .0196

.700 -.0923

.725 -.0704

.806 -.0795

.850 -.0912

.900 -.0814

.951 -.0743

MACH (1) = 3.499 BETA (7) = 4.560 PTO = 2175.556 PO = 28.889 R/F1 = 1.734 Q = 244.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .6870

X/C

.050 .2559 .3263 .4396

.250 .0119

.400 -.0073

.419 -.0569

.550 -.0673 -.0640

.600 .0330

.700 -.0448

.725 -.0840

.806 -.0757

.850 -.0883



1.6 LATED SOURCE DATA (1120 NING PRESSURES)

100-00411

1120 NING PRESSURE

1120 NING PRESSURE

DEPENDENT VARIABLE CP

1120 NING PRESSURE

1120 NING PRESSURE

1120 NING PRESSURE

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1120 NING PRESSURE

DATE 10-14-74 TABULATED SOURCE DATA - (INTERPOLATED PROFILES)

REF: 87-710 1A12C ON 11-51 JPMR WING PRESSURE

MACH (1) = 3.499 BETA (4) = -4.300 P/T = 2313.333 PO = 30.000 P/T = 1.455 Q = 260.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .090 .0214 .1216 .2114
 .290 -.0533
 .400 -.0445
 .419 -.0536
 .500 -.0636 .0714 -.0023
 .600 .0647
 .725 -.0506
 .806 -.0820
 .890 -.0590
 .900 -.0593
 .991 -.0315

MACH (1) = 3.499 BETA (4) = -2.200 P/T = 2313.333 PO = 30.000 P/T = 1.455 Q = 260.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .090 .0656 .1522 .2729
 .290 -.0403
 .400 -.0426
 .419 -.0523
 .500 -.0611 -.0651 -.0083
 .600 -.0921
 .725 -.0822
 .806 -.0793
 .890 -.0694
 .900 -.0780
 .991 -.0465

MACH (1) = 3.499 BETA (5) = -.010 P/T = 2313.333 PO = 30.000 P/T = 1.455 Q = 260.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .090 .1484 .2108 .3361
 .290 -.0153
 .400 -.0296
 .419 -.0534
 .500 -.0792 -.0764



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CASE: 3-27

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500
- .0025

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- .0845
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[illegible]

156. - .5 P09

$$I_1 = 3.499 \quad BE^*A \quad (P) = 4.3$$

Grain availability, nitrogen

4270 0455 0530 0540 0550

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3000
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Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains.

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A120 WING PRESSURES

10P20511

AMES 87-710 1A120 CH T1 S1 UPPER WING PRESSURE

MACH (1) = 3.499 BETA (7) = 4.350

SECTION 11 ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
.900 -.0714 -.0401
.951 -.0675

MACH (1) = 3.499 BETA (8) = 6.540 PTO = 2313.333 PO = 30.000 R/FT = 1.455 Q = 240.222

SECTION 11 ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
.090 .3228 .3720 .5135
.250 .0311
.400 .0610
.419 -.0517
.550 -.0593 -.0529
.600 .0462
.700
.725 -.0583
.836 -.0697
.850 -.0829
.900 -.0670 -.0335
.951 -.0637

MACH (1) = 3.499 BETA (9) = 7.650 PTO = 2313.333 PO = 30.000 R/FT = 1.455 Q = 240.222

SECTION 11 ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
.090 .3498 .4115 .5485
.250 .0342 .0063
.400
.415 -.0501
.550 -.0588 -.0497 .0503
.600
.700 -.075
.725 -.0801
.806 -.0703
.850 -.0802
.900 -.0682
.951 -.0643



(12 APR 74)

(12 APR 74)

REFERENCE DATA

REF = 2690.0000 SQ.FT. XREF = 933.0000 IN.
 YREF = 1328.0000 IN. WREF = 1.0000 IN.
 ZREF = 1328.0000 IN. WREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 MPSRA = .000
 POWER = 1.000 OPR = 41.000
 SPWR = 1.150 GINBAL = 1.000
 RUDDER = .000

MACH (1) = 3.499 BETA (1) = -7.540 PTO = 2411.889 PO = 31.556 R/FT = 1.346 Q = 271.333

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.050 -.0317 .0211 .1343
 .250 -.0187 -.0050
 .400 -.0049
 .419 -.0028 -.0025 .0338
 .550 .0006
 .700 .0057
 .725 .0035
 .806 .0026
 .850 .0164
 .900
 .951 .0130

MACH (1) = 3.499 BETA (2) = -6.570 PTO = 2411.889 PO = 31.556 R/FT = 1.346 Q = 271.333

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.050 -.0378 .0423 .1386
 .250 -.0193
 .400 -.0040
 .419 -.0018
 .450 -.0039 -.0035 .0324
 .550 .0001
 .700 .0063
 .725 .0074
 .806 .0021
 .850 .0154
 .900
 .951 .0172



AVES AP-110 1A12C 11 9: UPPER WING PRESSURE (UB2052)

MACRO	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
MACRO	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100

SECTION (1) ORBITER WING

Year	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

X/C			
.050	-.0285	.1039	.1418
.250	-.0510		
.400		-.0261	
.419	-.0321		
.550	-.0265	-.0536	
.600			.0132
.700		-.0174	
.725	-.0159		
.806	-.0244		
.850		-.0149	
.900	-.0210		.0019
.951	.0000		

WACH (1) =	3.499	BETA (4) =	-2.200	PFC	= 241.829	P/FT	= 1.346	Q	= 271.333
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SECTION (1) OR BITER WING	DEPENDENT VARIABLE CP
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y/8	.4270	.5340	.6730	.8870
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X,C				
.050	.0461	.1538	.2801	
.250	-.0472			
.400		-.0443		
.419	-.0472			
.550	-.0788	-.0630		
.600			-.0087	
.700		-.0845		
.725	-.0566			
.808	-.0878			
.850		-.10794		
.900	-.0898			-.0644
.951	-.0344			

WACH (1) =	3.499	BETA (5) =	-.010	PTO	= 2411.889	PO	= 31.556	R/FT	= 1.346	Q	= 271.333
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SECTION (1) ORBITER WING

y/B	.4270	.5340	.6750	.8870
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.090	.1477	.2134	.3417
.290	-.0179		
.400		-.0298	
.419	-.0450		
.590	-.0751	-.0758	

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURE

(JB7032)

AXES 87-710 1A12C Q1 T1 S1 UPPER WING PRESSURE

MACH (1) = 3.499 BETA (6) = -0.610

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C .600 .0110

.700 -.0501

.725 -.0569

.806 -.0771

.850 -.0875

.900 -.0752

.951 -.0582

MACH (1) = 3.499 BETA (6) = 2.170 PTO = 2411.889 PO = 31.556 R/FT = 1.346 Q = 271.353

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C .090 .3829

.250 -.0037

.400 -.0207

.419 -.0498

.550 -.0714

.600 -.0700

.700 .0197

.700 -.0884

.725 -.0587

.806 -.0719

.850 -.0879

.900 -.0512

.951 -.0642

MACH (1) = 3.499 BETA (7) = 4.350 PTO = 2411.889 PO = 31.556 R/FT = 1.346 Q = 271.353

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C .090 .4418

.250 .2852

.400 .0155

.419 -.0107

.550 -.0474

.600 -.0633

.700 -.0639

.725 -.0849

.806 -.0609

.850 -.0684

.900 -.0270

.950 -.0270



DATE 03 DEC 74

TABULATED SOURCE DATA - (AIRCRAFT MEASURES)

PAGE 006

AVES 87-710 TAIL 10 FT 51 UPPER WING PRESSURE

(UB2052)

MACH (1) = 3.499 BETA (1) = 4.350

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090
.250
.400
.419
.550
.600
.700
.725
.806
.850
.900
.951

-0.070

-0.0411

-0.0653

MACH (1) = 3.499 BETA (1) = 4.349 PTO = 2411.689 PO = 31.556 R/FT = 1.346 Q = 271.533

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090
.250
.400
.419
.550
.600
.700
.725
.806
.850
.900
.951

.3297

.3792

.5126

.0361

.0047

-.0417

-.0549

-.0493

.0457

-.0750

-.0541

-.0849

-.0766

-.0653

-.0333

-.0597

MACH (1) = 3.499 BETA (1) = 7.650 PTO = 2411.689 PO = 31.556 R/FT = 1.346 Q = 271.533

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
.090
.250
.400
.419
.550
.600
.700
.725
.806
.850
.900
.951

.3536

.4141

.5482

.0404

.0119

-.0393

-.0580

-.0452

.0541

-.0700

-.0549

-.0653

-.0773

-.0663

-.0317

-.0586

AMES 91-710 A12C CL TL ST UPPER WING PRESSURE (LP2055) (12 APR 74)

REFERENCE DATA

SREF = 2450.0000 SQ.FT. XMRP = 933.0000 IN.
 LREF = 1329.0000 IN. YMRP = .0000 IN.
 BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = .000
 GIMBAL = 1.000 RUDDER = 10.000

MACH (1) = 2.499 BETA (1) = -7.270 PTO = 2313.222 PO = 136.000 R/PT = 3.884 Q = 593.000

SECTION (1) ORBITTER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.050 -.0028 .0984 .1454
 .250 -.1070
 .400 -.1449
 .419 -.0939
 .550 -.1245 -.1619
 .600 -.1200
 .700 -.1631
 .725 -.1351
 .806 -.10624
 .850 -.1487
 .903 -.0971
 .951 -.1461

MACH (1) = 2.499 BETA (2) = -6.240 PTO = 2313.222 PO = 136.000 R/PT = 3.884 Q = 593.000

SECTION (1) ORBITTER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.050 .0169 .1124 .1495
 .250 -.1257
 .400 -.1416
 .419 -.0944
 .550 -.1293 -.1674
 .600 -.1174
 .700 -.1705
 .725 -.1361
 .806 -.0627
 .850 -.1597
 .900 -.0893
 .951 -.1428



DATE 14 SEP 74 TABULATED SOURCE DATA - 1/1220000 PRESSURE

(UB20551)

AVE P-1120 1/1220 ON T1 ON JPER WING PRESSURE

MACH (1) = 2.499 BETA (3) = -4.700 PTO = 2313.222 PO = 136.000 P/FT = 3.684 Q = 993.000

SECTION 1 (1) 1/1220 WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C	.050	.0537	.1423	.2190
.250				
.400				
.419				
.590				
.600				
.725				
.806				
.850				
.900				
.951				

MACH (1) = 2.499 BETA (4) = -2.440 PTO = 2313.222 PO = 136.000 P/FT = 3.684 Q = 993.000

SECTION 1 (1) 1/1220 WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C	.050	.1136	.1376	.2067
.250				
.400				
.419				
.590				
.600				
.725				
.806				
.850				
.900				
.951				

MACH (1) = 2.499 BETA (5) = -3.380 PTO = 2313.222 PO = 136.000 P/FT = 3.684 Q = 993.000

SECTION 1 (1) 1/1220 WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C	.050	.1440	.2102	.3051
.250				
.400				
.419				
.590				

AVES 87-710 1A12C M T1 S1 UPPER WING PRESSURE (LB/IN²)

MACH (1) = 2.499 BETA (1) = -1.590

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .600 -1.051
 .700 -1.178
 .725 -1.1807
 .808 -1.1011
 .850 -1.1740
 .900 -1.0869
 .951 -1.0365
 .951 -1.1367

MACH (1) = 2.499 BETA (1) = 1.670 PTO = 2313.222 PO = 136.000 R/FT = 3.884 Q = 593.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .090 .1697 .2520 .3439
 .250 -.0958
 .400 -1.1191
 .419 -1.1219
 .550 -1.1549 -1.1530
 .600 -1.0977
 .700 -1.1717
 .725 -1.1628
 .808 -1.0987
 .850 -1.1753
 .900 -1.1016
 .951 -1.0519
 .951 -1.1238

MACH (1) = 2.499 BETA (1) = 3.750 PTO = 2313.222 PO = 136.000 R/FT = 3.884 Q = 593.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .090 .2183 .2669 .3788
 .250 -.0786
 .400 -1.1043
 .419 -1.1192
 .550 -1.1572 -1.1596
 .600 -1.0946
 .700 -1.1633
 .725 -1.1633
 .808 -1.0568
 .850 -1.1662



TABULATED SOURCE DATA - 100% OF PRESSURES

ES 87-710 WING A 1 01 UPPER WING PRESSURE (0.0000)

MACH (1) = 2.499 BETA (9) = 3.700

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C .0900 -.1016 -.1130

.951 -.0508

MACH (1) = 2.499 BETA (9) = 3.700 PTO = 2313.222 PO = 136.000 R/PT = 3.804 Q = 593.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C .0900 .2613 .3284 .4252

.290 -.0666

.400 -.0951

.419 -.1151

.550 -.1529

.600 -.1317

.700 -.1576

.725 -.1614

.806 -.0909

.890 -.1583

.900 -.0929

.951 -.0429

-.1049

-.0847

-.1576

-.1614

-.0909

-.1583

-.0929

-.1049

MACH (1) = 2.499 BETA (9) = 6.810 PTO = 2313.222 PO = 136.000 R/PT = 3.804 Q = 593.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8670

X/C .0900 .2781 .3514 .4509

.290 -.0814

.400 -.0904

.419 -.1104

.550 -.1499

.600 -.1289

.700 -.1538

.725 -.1599

.806 -.0889

.890 -.1547

.900 -.0844

.951 -.0361

-.0768

-.1538

-.1599

-.0889

-.1547

-.0844

-.0361

AMES 87-710 (A120 ON Y1 S1 UPPER WING PRESSURE) (J.D.2056) (12 APR 74)

REFERENCE DATA

SREF = 2834.0000 SQ.FT. XREF = 943.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 SREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
 OPD = 31.260 SCPR = .916
 GIBBAL = 1.000 FLDDER = 10.000

MACH (1) = 2.499 BETA (1) = -7.590 PTO = 2302.667 PO = 139.000 R/PT = 2.364 Q = 990.222
 SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7600	.8870
X/C						
.050			-.0179	.0935		.1375
.250			-.1089			-.0904
.362		-.0555				
.400				-.1480		
.419		-.0973				
.530			-.1252	-.1655		
.600						-.1261
.697		-.0963				
.700				-.1658		
.725			-.1355			
.750						-.1711
.808		-.0847				
.832		-.0801		-.1900		
.900			-.0914			-.1535
.951		-.0428				
.966		-.0292				

MACH (1) = 2.499 BETA (2) = -6.560 PTO = 2302.667 PO = 139.000 R/PT = 2.364 Q = 990.222
 SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7600	.8870
X/C						
.090			.0067	.1084		.1414
.250			-.1275		-.0647	
.362		-.0587				
.400				-.1455		
.419		-.0981				
.530			-.1306	-.1700		
.600						-.1267
.697		-.0964				
.700				-.1746		
.725			-.1361			
.750						-.1698
.808		-.0858				
.832		-.0802				

TABLE 1. SOURCE DATA - DIMENSIONAL VALUES

WING PLANFORM DATA (UPPER SURFACE)

WING PLANFORM DATA (LOWER SURFACE)

WING PLANFORM DATA (MIDLINE)

WING PLANFORM DATA (LEADING EDGE)

WING PLANFORM DATA (TRAILING EDGE)

WING PLANFORM DATA (ROOT)

WING PLANFORM DATA (TIP)

WING PLANFORM DATA (CHORD)

WING PLANFORM DATA (SPAN)

WING PLANFORM DATA (AREA)

WING PLANFORM DATA (PERCENT CHORD)

WING PLANFORM DATA (PERCENT SPAN)

WING PLANFORM DATA (PERCENT AREA)

WING PLANFORM DATA (PERCENT PERIMETER)

WING PLANFORM DATA (PERCENT VOLUME)

WING PLANFORM DATA (PERCENT MASS)

WING PLANFORM DATA (PERCENT MOMENT)

WING PLANFORM DATA (PERCENT CENTER OF GRAVITY)

WING PLANFORM DATA (PERCENT CENTER OF PRESSURE)

WING PLANFORM DATA (PERCENT CENTER OF LIFT)

WING PLANFORM DATA (PERCENT CENTER OF DRAG)

WING PLANFORM DATA (PERCENT CENTER OF ROLL)

WING PLANFORM DATA (PERCENT CENTER OF PITCH)

WING PLANFORM DATA (PERCENT CENTER OF YAW)

WING PLANFORM DATA (PERCENT CENTER OF ROLL, PITCH, YAW)

WING PLANFORM DATA (PERCENT CENTER OF ROLL, PITCH, YAW, ROLL RATE, PITCH RATE, YAW RATE)

WING PLANFORM DATA (PERCENT CENTER OF ROLL, PITCH, YAW, ROLL RATE, PITCH RATE, YAW RATE, ROLL ACCELERATION, PITCH ACCELERATION, YAW ACCELERATION)

WING PLANFORM DATA (PERCENT CENTER OF ROLL, PITCH, YAW, ROLL RATE, PITCH RATE, YAW RATE, ROLL ACCELERATION, PITCH ACCELERATION, YAW ACCELERATION, ROLL JERK, PITCH JERK, YAW JERK)

WING PLANFORM DATA (PERCENT CENTER OF ROLL, PITCH, YAW, ROLL RATE, PITCH RATE, YAW RATE, ROLL ACCELERATION, PITCH ACCELERATION, YAW ACCELERATION, ROLL JERK, PITCH JERK, YAW JERK, ROLL SKEWNESS, PITCH SKEWNESS, YAW SKEWNESS)

WING PLANFORM DATA (PERCENT CENTER OF ROLL, PITCH, YAW, ROLL RATE, PITCH RATE, YAW RATE, ROLL ACCELERATION, PITCH ACCELERATION, YAW ACCELERATION, ROLL JERK, PITCH JERK, YAW JERK, ROLL SKEWNESS, PITCH SKEWNESS, YAW SKEWNESS, ROLL KURTOSIS, PITCH KURTOSIS, YAW KURTOSIS)

DATA FILE 14 TWO-LAYER SURGE DATA - 1A12C WING PRESSURES

ANUS 17-110 1A12C ON 17 SI UPPER WING PRESSURE (UP 2058)

MAC (1) = 2.499 BETA (9) = 8.610 PTO = 2502.667 PO = 135.000 P/FY = 2.364 Q = 590.222

SECTION (1) UPPER WING DEPENDENT VARIABLE CP

Y/B	17-110	.4270	.5340	.6730	.7800	.8870
X/C						
.090		.2803	.3249		.4275	
.290		-.0672		-.0017		
.362	-.0031					
.400			-.0950			
.419		-.1143				
.590			-.1533	-.1323		
.600					-.0831	
.697	-.0798					
.700			-.1566			
.725		-.1579		-.1368		
.750						
.808		-.0904				
.832	-.0491					
.850		-.0699	-.1579		-.1033	
.900						
.951	-.0444					
.966	.0898					

MAC (1) = 2.499 BETA (9) = 8.610 PTO = 2502.667 PO = 135.000 P/FY = 2.364 Q = 590.222

SECTION (1) LOWER WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.5340	.6730	.7800	.8870
X/C						
.090		.2804	.3526		.4522	
.290		-.0603		.0094		
.362	.0095					
.400			-.0908			
.419		-.1078				
.590			-.1900	-.1283		
.600					-.0761	
.697	-.0897					
.700			-.1530			
.725		-.1578		-.1348		
.750						
.808		-.0852				
.832	-.0387					
.850			-.1539		-.0948	
.900		-.0459				
.951	-.0322					
.966	.0875					

AUG 87-110 TAI2C IN T1 S1 UPPER WING PRESSURE (082059) (12 APR 74)

REFERENCE DATA

SREF = 2650.0000 SQ.FT. XREF = 953.0000 IN.
 PREF = 1328.0000 IN. YREF = 1000.0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 ALPHA = 1.000 RUDDER = 10.000

MACH (1) = 3.002 BETA (1) = .750 PTO = 2311.778 PO = 63.000 R/FT = 3.106 Q = 396.000

SECTION (1) JOBLITER WING DEPENDENT VARIABLE CP

Y/B	X/C	CP
.050	.2713	.3563
.250	.0211	.0349
.362	.0408	
.400		-.0274
.419		
.590	-.0212	-.0577
.600		-.0643
.697	-.0201	
.700		-.0076
.725		-.0872
.750		-.0782
.806		-.0679
.832	-.0255	
.850	.0107	
.900		-.0868
.951		-.0392
.966	.0275	
		-.0565

(UB2060) (12 APR 74)

AVES 87-710 1A12C OF T1 S1 UPPER WING PRESSURE

REFERENCE DATA

BREF = 2890.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 SREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = .000
 GIMBAL = 1.000 RUDDER = 10.000

MACH (1) = 3.002 BETA (1) = -7.290 PTO = 2310.776 PO = 63.000 R/PT = 3.029 Q = 395.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.050						
.250						
.362						
.400						
.419						
.550						
.600						
.697						
.700						
.725						
.750						
.806						
.832						
.850						
.900						
.951						
.966						

MACH (1) = 3.002 BETA (2) = -6.240 PTO = 2310.776 PO = 63.000 R/PT = 3.029 Q = 395.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.050						
.250						
.362						
.400						
.419						
.550						
.600						
.697						
.700						
.725						
.750						
.806						
.932						

AVES 87-710 1412C ON T1 S1 UPPER WING PRESSURE (LB/IN²)

MACH (1) = 3.002 BETA (4) = -2.080

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.700					
.725					
.750					
.806					
.832					
.850					
.900					
.951					
.966					

MACH (1) = 3.002 BETA (5) = .040 PTO = 2310.778 PO = 63.000 R/F1 = 3.029 Q = 395.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090					
.290					
.362					
.400					
.419					
.550					
.600					
.697					
.700					
.725					
.750					
.806					
.832					
.850					
.900					
.951					
.966					



DATE: 1/14 TABULATED SOURCE DATA - (UNDERWING PRESSURES)

WING (1) = 3.002 BETA (1) = 0.160 PTO = 2310.778 PO = 63.000 R/FY = 3.029 Q = 395.778
 AXES 87-710 14100 X 1001 UPPER WING PRESSURE (LB/1000)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.1814	.2703		.3622
.250			-.0411		-.1047	
.362	-.0343					
.400				-.0628		
.419						
.550		-.0631		-.1028	-.1029	
.600						-.0303
.697	-.0775					
.700				-.1201		
.725				-.1072		
.750					-.0934	
.806		-.0945				
.832	-.0634			-.1186		
.850			-.1025			-.0829
.900						
.951		-.0662				
.966	-.0075					

MACH (1) = 3.002 BETA (1) = 4.210 PTO = 2310.778 PO = 63.000 R/FY = 3.029 Q = 395.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.2586	.3216		.4070
.250			-.0250		.0168	
.362	-.0149					
.400				-.0484		
.419						
.550		-.0766		-.0907		
.600						-.0220
.697	-.0644					
.700				-.1118		
.725			-.1046			-.0833
.750						
.806		-.0656				
.832	-.0315			-.1129		
.850			-.1021			-.0725
.900						
.951		-.0580				
.966	.0199					



AVES 87-710 1A12C ON T1 S1 UPPER WING PRESSURE (LB/2040)

MACH (1) = 3.502 BETA (8) = 6.310 PTD = 2310.778 PO = 63,000 R/FT = 3.029 Q = 395.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.3117	.3792	.4652	
.250			-.0082		.0354	
.362	-.0018					
.400				-.0388		
.419		- 1877				
.550			-.0935	-.0818		
.600						-.0103
.697	-.0573					
.700				-.1036		
.725			-.1011			
.750					-.0178	
.806			-.0833			
.832	-.0437			-.1086		
.850						-.0618
.900			-.0918			
.951		-.0466				
.966	.0430					

MACH (1) = 3.002 BETA (9) = 7.350 PTD = 2110.778 PO = 63,000 R/FT = 3.029 Q = 395.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.050			.3303	.4048	.4978	
.250			-.0032		.0462	
.362	.0080					
.400				-.0323		
.419		-.0684				
.550			-.0913	-.0764		
.600						-.0052
.697	-.0497					
.700				-.0993		
.725			-.0993			
.750					-.0759	
.806		-.0809				
.832	-.0372					
.850			-.1040			
.900			-.0850			-.0539
.951		-.0419				
.966	.0545					



UNCLASSIFIED SOURCE DATA - MATHEMATICAL PROCESSES

12 APR 74

1400 14710 14000 14710 14000 14710

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
 CPM = 28.000 SCALE = .700
 D. BAL = 1.000 D. COEF = 10.000

REFERENCE DATA

WAVE = 2890.0000 32.877 WAVE = 303.0000 140
 WAVE = 1128.0000 140 WAVE = 1000.0000 140
 WAVE = 1328.0000 140 WAVE = 400.0000 140
 SCALE = 1000.0000

WAVE (1) = 3.002 BETA (1) = 1.000 PTO = 2297.556 PO = 62.222 P/FY = 1.941 Q = 393.222

SECTION (1) OBSERVED WAVE

WAVE 2890.0000 32.877 WAVE 303.0000 140 WAVE 1128.0000 140 WAVE 1000.0000 140

WAVE	2890.0000	32.877	303.0000	140	1128.0000	140	1000.0000	140
X/C	.090	.090	.090	.090	.090	.090	.090	.090
.250	.090	.090	.090	.090	.090	.090	.090	.090
.362	.090	.090	.090	.090	.090	.090	.090	.090
.400	.090	.090	.090	.090	.090	.090	.090	.090
.419	.090	.090	.090	.090	.090	.090	.090	.090
.550	.090	.090	.090	.090	.090	.090	.090	.090
.600	.090	.090	.090	.090	.090	.090	.090	.090
.697	.090	.090	.090	.090	.090	.090	.090	.090
.750	.090	.090	.090	.090	.090	.090	.090	.090
.725	.090	.090	.090	.090	.090	.090	.090	.090
.750	.090	.090	.090	.090	.090	.090	.090	.090
.808	.090	.090	.090	.090	.090	.090	.090	.090
.832	.090	.090	.090	.090	.090	.090	.090	.090
.890	.090	.090	.090	.090	.090	.090	.090	.090
.900	.090	.090	.090	.090	.090	.090	.090	.090
.951	.090	.090	.090	.090	.090	.090	.090	.090
.995	.090	.090	.090	.090	.090	.090	.090	.090

WAVE (1) = 3.002 BETA (2) = -0.240 PTO = 2297.556 PO = 62.222 P/FY = 1.941 Q = 393.222

SECTION (1) OBSERVED WAVE

WAVE 2890.0000 32.877 WAVE 303.0000 140 WAVE 1128.0000 140 WAVE 1000.0000 140

WAVE	2890.0000	32.877	303.0000	140	1128.0000	140	1000.0000	140
X/C	.090	.090	.090	.090	.090	.090	.090	.090
.250	.090	.090	.090	.090	.090	.090	.090	.090
.362	.090	.090	.090	.090	.090	.090	.090	.090
.400	.090	.090	.090	.090	.090	.090	.090	.090
.419	.090	.090	.090	.090	.090	.090	.090	.090
.550	.090	.090	.090	.090	.090	.090	.090	.090
.600	.090	.090	.090	.090	.090	.090	.090	.090
.697	.090	.090	.090	.090	.090	.090	.090	.090
.750	.090	.090	.090	.090	.090	.090	.090	.090
.725	.090	.090	.090	.090	.090	.090	.090	.090
.750	.090	.090	.090	.090	.090	.090	.090	.090
.808	.090	.090	.090	.090	.090	.090	.090	.090
.832	.090	.090	.090	.090	.090	.090	.090	.090



AIRCRAFT (A120) M1 S1 UPPER WING PRESSURE (UP 061)

MACH (1) = 3.002 BETA (2) = -0.240

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.5340	.6730	.7800	.8870
X/C						
.690				-1.031		
.900			-0.749			-0.0927
.931		-0.419				
.966	-0.0237					

MACH (1) = 3.002 BETA (3) = -4.150 PTO = 2297.556 PO = 62.222 R/PT = 1.941 Q = 393.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.0147	.1490		.2239
.250			-0.0639		-0.0602	
.362	-0.0532			-0.0826		
.400						
.419		-0.0761				
.550			-1.1117	-1.1208		-0.0534
.600						
.697	-0.0761					
.700				-1.1223		
.725			-0.0961			
.750					-1.1107	
.806		-0.0810				
.832	-0.0619					
.890				-1.1162		
.900			-0.0826			-1.1007
.931		-0.0420				
.966	-0.0214					

MACH (1) = 3.002 BETA (4) = -2.060 PTO = 2297.556 PO = 62.222 R/PT = 1.941 Q = 393.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.0726	.1429		.2776
.250			-0.0710		-0.0549	
.362	-0.0511					
.400				-0.0763		
.419		-0.0629				
.550			-1.1129	-1.1119		
.600						-1.0461
.697	-0.0767					

TABLED SOURCE DATA (AIRFLOW PRESSURES)

SECTION 1100B INTER WING

MACH (1) = 3.002 BETA (5) = .030

SECTION 1100B INTER WING

Y/P .2990 .4270 .5340 .6730 .7800 .8970

X/C

.090 .125 .160 .195 .230 .265
 .300 .335 .370 .405 .440 .475
 .510 .545 .580 .615 .650 .685
 .720 .755 .790 .825 .860 .895
 .930 .965

MACH (1) = 3.002 BETA (5) = .030 Q = 2297.556 Q = 62.222 R/PT = 1.941 Q = 593.222

SECTION 1100B INTER WING

Y/P .2990 .4270 .5340 .6730 .7800 .8970

X/C

.090 .125 .160 .195 .230 .265
 .300 .335 .370 .405 .440 .475
 .510 .545 .580 .615 .650 .685
 .720 .755 .790 .825 .860 .895
 .930 .965



DATE 03 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 025

AVES 87-710 1A12C ON T1 S1 UPPER WING PRESSURE (LB/2061)

MACH (1) = 3.002 BETA (0) = 2.130 PTO = 2297.556 PO = 62.222 R/FY = 1.941 Q = 393.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7600	.8870
X/C						
.050			.1680	.2772		.3648
.250			-.0391		-.0059	
.362	-.0324					
.400				-.0615		
.419		-.0630				
.550			-.1012	-.1028		
.600						-.0294
.697	-.0754					
.700				-.1204		
.725			-.0969			
.750					-.0952	
.806		-.0937				
.832	-.0814					
.850			-.1179			
.900		-.0992				-.0832
.951			-.0843			
.966	-.0051					

MACH (1) = 3.002 BETA (7) = 4.220 PTO = 2297.556 PO = 62.222 R/FY = 1.941 Q = 393.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7600	.8870
X/C						
.050			.2621	.3290		.4126
.250			-.0225		.0163	
.362	-.0161					
.400				-.0462		
.419		-.0767				
.550			-.0966	-.0693		
.600						-.0199
.697	-.0665					
.700				-.1121		
.725			-.0943			-.0671
.750						
.806		-.0665				
.832	-.0514					
.850			-.1126			
.900		-.0966				-.0723
.951			-.0566			
.966	.0208					



WIDE 498

120 LBS. PRESSURE

(8.2081)

WIDE 498 120 LBS. PRESSURE

WIDE 498

(8.2081)

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MACH (1) = 3.002 BETA (9) = 7.550 PTO = 2297.956 PO = 62.222 R/F7 = 1.941 0 = 393.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .3356 .4054 .4969

.290 .0024 .0461

.362 .0084

.400 .0517

.419 .0094

.530 .0813 .0752

.600 .0034

.697 .0461

.700 .0990

.729 .0947

.750 .0742

.806 .0816

.832 .1033

.890 .0624

.900 .0545

.931 .0427

.946 .0463



AMES 87-750 14120 ON T1 51 UPPER WING PRESSURE (LB/2004) (12 APR 74)

REFERENCE DATA

$WING = 2960.0000$ SQ. FT. $WING = 943.0000$ IN.
 $WING = 1326.0000$ IN. $WING = 10000$ IN.
 $WING = 1326.0000$ IN. $WING = 400.0000$ IN.
 $SCALE = 0.190$ SCALE

PARAMETRIC DATA

$ALPHA = 1.000$ POWER = 10.000
 $GUMMAL = 1.000$ POWER = 10.000

$WING (1) = 3.499$ $BETA (1) = -7.660$ $PTO = 2308.333$ $PO = 50.000$ $R/PY = 2.414$ $Q = 259.596$

SECTION (1) 11081178 WING DEPENDENT VARIABLE CP

Y/B	.2960	.4270	.5340	.6750	.7600	.8670
X/C						
.050			-.0106	.0531		.1200
.290			-.0652		-.0669	
.362	-.0499					
.400				-.0626		
.419			-.0874			
.550			-.0864	-.0964		
.600						-.0414
.697	-.0866					
.700			-.0775	-.0997		
.723						
.750					-.0693	
.708		-.0777				
.832	-.0692		-.0997			
.850			-.0871			-.0891
.900						
.921		-.0999				
.966	-.0312					

$WING (1) = 3.499$ $BETA (2) = -8.560$ $PTO = 2308.333$ $PO = 50.000$ $R/PY = 2.414$ $Q = 259.596$

SECTION (1) 11081178 WING DEPENDENT VARIABLE CP

Y/B	.2960	.4270	.5340	.6750	.7600	.8670
X/C						
.050			.0019	.0766		.1214
.290			-.0629		-.0996	
.362	-.0498					
.400				-.0562		
.419			-.0869			
.550			-.0692	-.0926		
.600						-.0397
.697	-.0866					
.700			-.1019			
.723			-.0816			
.750						-.0709
.808		-.0804				
.922	-.0697					



UNBLATED SOURCE DATA - ANALYTICAL RESULTS

(082004)

ANALYSIS OF THE DATA - SUMMARY OF RESULTS

WAC (1) = 3.499 BETA (2) = -0.562

SECTION 1 (1) 10 WING

WAC (1) = 3.499 BETA (2) = -0.562

WAC

.090

.090

.091

.090

WAC (1) = 3.499 BETA (3) = -0.562 PTO = 2508.333 PO = 30.000 RPT = 2.414 Q = 259.996

SECTION 1 (1) 10 WING

WAC (1) = 3.499 BETA (3) = -0.562 PTO = 2508.333 PO = 30.000 RPT = 2.414 Q = 259.996

WAC

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DATE 09 DEC 74 TIBULATED SOURCE DATA - 1A12C (WING PRESSURES)

(UB 2004)

MACH (1) = 3.498 BETA (4) = -2.200

SECTION (1) 1108170R WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8870

X/C
.700
.725
.750
.808
.832
.850
.900
.951
.966

-.1013
-.0855
-.0771
-.0851
-.1002
-.0826
-.0864
-.0862

-.0736

MACH (1) = 3.498 BETA (5) = -.020 PTO = 2306.333 PO = 30.000 R/PT = 2.414 Q = 259.55J

SECTION (1) 1108170R WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8870

X/C
.090
.290
.362
.400
.419
.590
.600
.697
.700
.725
.750
.808
.832
.850
.900
.951
.966

.1441
-.0176
-.0308
-.0319
-.0777
-.0813
-.0826
-.0777
-.0830
-.0871
-.0699
-.0832

.3335
-.0172
-.0267
-.0735
-.0082

-.0724

WACH (1) = 3.499 BETA (6) = 2.110 PTO = 2506.333 PO = 50.000 R/FT = 2.414 Q = 259.556
 AWE 37-710 1A12C 02 11 91 UPPER WING PRESSURE (LB/2064)

SECTION (1) UPPER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
 .090 .1824 .2659 .3727
 .250 .10334
 .362 -.0269
 .400 -.0221
 .419
 .550 -.0629
 .600 -.0722
 .697 -.0613
 .700 -.0620
 .725 -.0811
 .750
 .806 -.0793
 .832 -.0651
 .850 -.0926
 .900 -.0844
 .951 -.0750
 .966 -.0572
 .0146

WACH (1) = 3.499 BETA (7) = 4.350 PTO = 2506.333 PO = 50.000 R/FT = 2.414 Q = 259.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
 .090 .2554 .3296 .4348
 .250 .0124 .0160
 .362 -.0139
 .400 -.0086
 .419
 .550 -.0566
 .600 -.0663
 .697 -.0553
 .700 -.0649
 .725 -.0764
 .750 -.0604
 .806 -.0772
 .832 -.0546
 .850 -.0871
 .900 -.0773
 .951 -.0744
 .966 -.0480
 -.0040



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.499 BETA (8) = 6.540 PTO = 2306.333 PO = 30.000 R/FT = 2.414 Q = 259.556
(LB/2004)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C	.090	.3194	.3668	.5066		
.250	.0294	.0461				
.362	-.0019					
.473		-.0020				
.419						
.550	-.0326	-.0608	-.0560	.0362		
.600						
.697	-.0466					
.700		-.0789				
.725		-.0735		-.0500		
.750						
.808	-.0722					
.832	-.0499		-.0838			
.850		-.0735		-.0404		
.900						
.951	.0873					
.966	.0196					

MACH (1) = 3.499 BETA (9) = 7.630 PTO = 2306.333 PO = 30.000 R/FT = 2.414 Q = 259.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C	.090	.3456	.4087	.5416		
.250	.0337	.0561				
.362	.0081					
.400		.0084				
.419	-.0460					
.550		-.0597	-.0476	.0443		
.600						
.697	-.0400					
.700		-.0724				
.725		-.0707		-.0451		
.750						
.808	-.0879					
.832	.0449		-.0795			
.850		-.0696		-.0376		
.900						
.951	-.0835					
.966	.0277					

DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

ALPS 87-710 1A12C C1 T1 S1 UPPER WING PRESSURE (UB7085) (12 APR 74)

REFERENCE DATA
 SREF = 1850.0000 SQ.FT. XMRP = 993.0000 IN. ALPHA = .000 PC-ER = 1.000
 LREF = 1328.0000 IN. YMRP = .0000 IN. MACH = 29.880 SRMPR = .828
 PRPF = 1328.0000 IN. Z P = 450.0000 IN. F 12AL = 1.000 RUDDER = 10.000
 SCALE = .0190 SCALE

PARAMETRIC DATA
 MACH (1) = 3.499 BETA (1) = -7.863 PTO = 2310.778 PO = 30.000 R/PY = 1.446 Q = 280.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	CP
.2990 .4270 .5340 .6730 .7800 .8870		
.090	-.0457	.0283
.250	-.0321	-.0148
.362	-.0298	-.0125
.400	-.0113	-.0142
.419	-.0185	-.0249
.550	-.0129	-.0105
.600	-.0087	-.0059
.697	-.0081	-.0058
.700	-.0099	.0058
.725	-.0085	
.750	.0068	
.806	.0149	

MACH (1) = 3.499 BETA (2) = -8.560 PTO = 2310.778 PO = 30.000 R/PY = 1.446 Q = 280.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	CP
.2990 .4270 .5340 .6730 .7800 .8870		
.090	-.0381	.0560
.250	-.0311	-.0279
.362	-.0272	-.0159
.400	-.0157	-.0161
.419	-.0202	.0139
.550	-.0174	-.0170
.600	-.0121	-.0160
.697	-.0198	
.700	-.0150	
.725		
.750		
.806		
.832		



AVES 87-710 1A12C CH 71 S1 UPPER WING PRESSURE (UBZ085)

WACH (1) = 5.499 BETA (2) = -0.560 DEPENDENT VARIABLE CP

γ/β	.899C	.427D	.554D	.675D	.760D	.887D
γ/C						
.850				- .0160		
.900			- .0132			
.951						- .0057
.986	.0077	- .0006				

$$\begin{aligned} \text{WACH} (1) &= 3.499 & \text{BETA} (3) &= -4.390 & \text{PTO} &= 2310.778 & \text{PO} &= 30,000 & \text{R/FY} &= 1.448 & Q &= 960,000 \end{aligned}$$

SECTION (1) ORBITER WING

Y/Y	.8990	.4270	.5340	.6750	.7800	.8870
X/C						
.090			-.0051	.1247		.2097
.250			-.0611		-.0531	
.362	-.0093					
.400				-.0498		
.419						
.550			-.0672	-.0873		
.600						
.697	-.0654			-.0911		-.0195
.700						
.725			-.0623			
.750					-.0764	
.806						
.832	-.0636					
.850						
.900				-.0911		
.951			-.0746			-.0664
.966	-.0181		-.0404			

WACH (1) =	3.499	BETA (4) =	-2.200	PTO	= 2310,778	PO	= 30,000	R/F7	= 1.446	Q	= 260,000
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SECTION (1) ORBITER WING

Y/B	.2990	.4270	.5340	.6730	.7600	.8870
X/C						
.090			.0677	.1516		.2723
.230			-.0408		-.0453	
.362	-.0342					
.400				-.0419		
.419		-.0609				
.550			-.0627	-.0839		
.600						
.697	-.0631					-.0067

DATE 25 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 034

(JB2085)

MACH (1) = 3.499 BETA (4) = -2.200

AVES 87-710 1A12C ON T1 S1 UPPER WING PRESSURE

SECTION - 1108BITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.700 -.0910
 .725 -.0432
 .750 -.0417
 .806 -.0756
 .832 -.0663
 .850 -.0910
 .900 -.0763
 .951 -.0500
 .966 -.0151
 -.0726

MACH (1) = 3.499 BETA (5) = -.020 PTC - 2310.776 PO = 30.000 P/FT = 1.446 Q = 280.000

SECTION - 1108BITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .1434 .2085 .3324
 .250 -.0185 -.0175
 .362 -.0266
 .400 -.0306
 .419 -.0804
 .500 -.0787 -.0774
 .600 .0068
 .697 -.0642
 .700 -.0899
 .725 -.0725
 .750 -.0757
 .806 -.0649
 .832 -.0820
 .850 -.0757
 .900 -.0616
 .951 -.0875
 .966 -.0212
 -.0628



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C(WING PRESSURES)

MACH (1) = 3.499 BETA (6) = 2.170 PTO = 2310.778 PO = 30.000 R/FT = 1.446 Q = 260.000
 AIES 87-710 1A12C ON TL SL UPPER WING PRESSURE (UBZ085)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.1836	.2705		.3765
.250			-.0026		-.0016	
.362	-.0232					
.400				-.0190		
.419		-.0623				
.550			-.0693	-.0716		.0161
.600						
.697	-.0623					
.730				-.0900		
.725			-.0629		-.0683	
.750						
.706		-.0785				
.832	-.0639			-.0900		-.0955
.850			-.0776			
.900						
.951		-.0704				
.966	-.0183					

MACH (1) = 3.499 BETA (7) = 4.350 PTO = 2310.778 PO = 30.000 R/FT = 1.446 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.2569	.3298		.4378
.250			.0120		.0157	
.362	-.0096					
.400				-.0094		
.419		-.0566				
.550			-.0678	-.0657		.0277
.600						
.697	-.0574					
.700				-.0660		
.725			-.0630			
.750					-.0592	
.806		-.0766				
.832	-.0596					
.850			-.0860			-.0440
.900			-.0728			
.951		-.0722				
.966	-.0005					



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87.710 1A12C CM T1 S1 UPPER WING PRESSURE (UB2086) (12 APR 74)

PARAMETRIC DATA

ALPHA = .000 POWER = .000
GIMBAL = 5.000 RUDDER = .000

REFERENCE DATA

WING = 2690.0000 SQ.FT. WING = 953.0000 IN.
REF = 1328.0000 IN. WING = .0000 IN.
REF = 1328.0000 IN. WING = 400.0000 IN.
SCALE = .0190 SCALE

MACH (1) = 3.002 BETA (1) = -7.290 PTO = 2312.333 PO = 63.000 R/FT = 2.313 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .0148 .0489 .1602
.250 -.0832 -.0647
.302 -.0495
.400 -.0843
.419 -.0721
.550 -.0989 -.1158
.600 -.0633
.697 -.0695
.700 -.1219
.725 -.0697
.750 -.1144
.806 -.0785
.822 -.0999
.850 -.1194
.900 -.0772
.931 -.0420
.966 -.1095
-0.0241

MACH (1) = 3.002 BETA (2) = -6.240 PTO = 2312.333 PO = 63.000 R/FT = 2.313 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .0333 .1192 .1329
.250 -.0777 -.0546
.342 -.0793
.400 -.0793
.419 -.0770
.550 -.1064 -.1136
.600 -.0836
.697 -.0716
.700 -.1251
.725 -.0975
.750 -.1109
.806 -.0810
.832 -.0609



AVES = 750 (AIRC ON T1 91 UPPER WING PRESSURE (LB/2000))

WACH (1) = 3.002 BETA (4) = -2.050

SECTION 1 (1) ORBITER WING DEPENDENT VARIABLE CP

WACH 2990 .4270 .5340 .6750 .7800 .8870

W/C
 .750 -.1190
 .725 -.1043
 .750 -.1018
 .708 -.0896
 .732 -.0823
 .690 -.1172
 .900 -.0979
 .650 -.0495
 .668 -.0197
 .650 -.0978

WACH (1) = 3.002 BETA (9) = .030 PTO = 2312.333 PO = 60,000 R/FY = 2.313 Q = 398,000

SECTION 1 (1) ORBITER WING DEPENDENT VARIABLE CP

WACH 2990 .4270 .5340 .6750 .7800 .8870

W/C
 .090 .1608 .2278 .3213
 .250 -.0524 -.0178
 .362 -.0419
 .400 -.0614
 .419 -.0628
 .550 -.1093 -.0923
 .600 -.0322
 .697 -.0749
 .700 -.1151
 .725 -.1078
 .750 -.0958
 .708 -.0921
 .732 -.0824
 .750 -.1151
 .900 -.0990
 .651 -.0887
 .668 -.0180

TABULATED SOURCE DATA - AIRCRAFT PRESSURES

AVES 87-110 1412 1.75 1.1 JPER WING PRESSURE (0.2046)

WACH (1) = 3.002 BETA (1) = 2.120 PTO = 2312.333 PO = 63.000 R/FT = 2.313 0 = 396.000

DEPENDENT VARIABLE CP

SECTION (1) 11081178 WING

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C	.090	.1430	.2791	.3630	.4099	.4099
.250						
.250						
.362						
.400						
.419						
.550						
.600						
.697						
.700						
.729						
.750						
.808						
.832						
.850						
.900						
.951						
.966						

WACH (1) = 3.002 BETA (1) = 2.120 PTO = 2312.333 PO = 63.000 R/FT = 2.313 0 = 396.000

DEPENDENT VARIABLE CP

SECTION (1) 11081178 WING

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C	.090	.1430	.2791	.3630	.4099	.4099
.250						
.250						
.362						
.400						
.419						
.550						
.600						
.697						
.700						
.729						
.750						
.808						
.832						
.850						
.900						
.951						
.966						



(1120 1120 PRESSURE)

1120 1120 PRESSURE

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
 BETA = .000 POWER = .768
 CUBIC = 3.000 POWER = .000

REFERENCE DATA

SCALE = 1.000 SCALE
 1120 1120 PRESSURE
 1120 1120 PRESSURE
 1120 1120 PRESSURE
 1120 1120 PRESSURE

MAJOR (1) = 3.002 BETA (1) = .000 P/FY = 2.282 3 = 393.623

SECTION (1) 1120 1120 PRESSURE

Y/B .2990 .4270 .5340 .6700 .7610 .8870

X/C
 .090 .0119 .0994 .1340
 .290 .0451 .0590
 .362 .0430 .0455
 .400 .0757 .1178
 .419 .1084 .1178
 .550 .0892
 .600 .0725 .1135
 .700 .0693 .1097
 .725 .0816
 .750 .0817 .1080
 .852 .0712 .0908
 .900 .0413
 .951 .0190
 .966 .0190

MAJOR (1) = 3.002 BETA (2) = .000 P/FY = 2.282 3 = 393.623

SECTION (1) 1120 1120 PRESSURE

Y/B .2990 .4270 .5340 .6700 .7610 .8870

X/C
 .090 .0158 .1532 .2191
 .290 .0423 .0533
 .362 .0772
 .400 .0778 .1124
 .419 .1120 .1124
 .550 .0911
 .600 .1210
 .700 .0937 .1081
 .725 .0775
 .750 .0584
 .852 .0584

DATE 11/11/71 CALCULATED SOURCE DATA (11/12/71) WING PRESSURES

REF 11/10 14120 CM TS 51 JAMES WING PRESSURE (0.2047)

MACH 1.2 BETA (2) = 1.12

SECTION 11/12/71 WING DEPENDENT VARIABLE CP

REF 11/10 14120 CM TS 51 JAMES WING PRESSURE (0.2047)

X/C
 .030
 .040
 .050
 .060
 .070
 .080
 .090
 .100
 .110
 .120
 .130
 .140
 .150
 .160
 .170
 .180
 .190
 .200
 .210
 .220
 .230
 .240
 .250
 .260
 .270
 .280
 .290
 .300
 .310
 .320
 .330
 .340
 .350
 .360
 .370
 .380
 .390
 .400
 .410
 .420
 .430
 .440
 .450
 .460
 .470
 .480
 .490
 .500
 .510
 .520
 .530
 .540
 .550
 .560
 .570
 .580
 .590
 .600
 .610
 .620
 .630
 .640
 .650
 .660
 .670
 .680
 .690
 .700
 .710
 .720
 .730
 .740
 .750
 .760
 .770
 .780
 .790
 .800
 .810
 .820
 .830
 .840
 .850
 .860
 .870
 .880
 .890
 .900
 .910
 .920
 .930
 .940
 .950
 .960
 .970
 .980
 .990
 1.000

MACH 1.2 BETA (2) = 1.12 DATA (3) = -2.040 P/D = 2299.125 P/D = 62.125 P/FY = 2.282 Q = 393.623

SECTION 11/12/71 WING DEPENDENT VARIABLE CP

X/C
 .030
 .040
 .050
 .060
 .070
 .080
 .090
 .100
 .110
 .120
 .130
 .140
 .150
 .160
 .170
 .180
 .190
 .200
 .210
 .220
 .230
 .240
 .250
 .260
 .270
 .280
 .290
 .300
 .310
 .320
 .330
 .340
 .350
 .360
 .370
 .380
 .390
 .400
 .410
 .420
 .430
 .440
 .450
 .460
 .470
 .480
 .490
 .500
 .510
 .520
 .530
 .540
 .550
 .560
 .570
 .580
 .590
 .600
 .610
 .620
 .630
 .640
 .650
 .660
 .670
 .680
 .690
 .700
 .710
 .720
 .730
 .740
 .750
 .760
 .770
 .780
 .790
 .800
 .810
 .820
 .830
 .840
 .850
 .860
 .870
 .880
 .890
 .900
 .910
 .920
 .930
 .940
 .950
 .960
 .970
 .980
 .990
 1.000

MACH 1.2 BETA (2) = 1.12 DATA (4) = .030 P/D = 2299.125 P/D = 62.125 P/FY = 2.282 Q = 393.623

SECTION 11/12/71 WING DEPENDENT VARIABLE CP

X/C
 .030
 .040
 .050
 .060
 .070
 .080
 .090
 .100
 .110
 .120
 .130
 .140
 .150
 .160
 .170
 .180
 .190
 .200
 .210
 .220
 .230
 .240
 .250
 .260
 .270
 .280
 .290
 .300
 .310
 .320
 .330
 .340
 .350
 .360
 .370
 .380
 .390
 .400
 .410
 .420
 .430
 .440
 .450
 .460
 .470
 .480
 .490
 .500
 .510
 .520
 .530
 .540
 .550
 .560
 .570
 .580
 .590
 .600
 .610
 .620
 .630
 .640
 .650
 .660
 .670
 .680
 .690
 .700
 .710
 .720
 .730
 .740
 .750
 .760
 .770
 .780
 .790
 .800
 .810
 .820
 .830
 .840
 .850
 .860
 .870
 .880
 .890
 .900
 .910
 .920
 .930
 .940
 .950
 .960
 .970
 .980
 .990
 1.000



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

WACH (1) = 3.002 BETA (P) = 6.300 PTO = 2299.125 PO = 62.125 R/PT = 2.282 Q = 393.625
 AWES 87-710 1A12C Q1 T1 S1 UPPER WING PRESSURE (LB/2087)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.2515	.3284	.4112	
.250			-.0201		.0208	
.362		-.0164				
.400				-.0428		
.419			-.0748			
.550				-.0949	-.0857	
.600						-.0174
.657		-.0661				
.700				-.1091		
.725			-.0889			
.750					-.0828	
.806		-.0849				
.832		-.0506				
.850				-.1084		
.900			-.0943			-.0707
.951		-.0579				
.966		.0207				

WACH (1) = 3.002 BETA (P) = 6.300 PTO = 2299.125 PO = 62.125 R/PT = 2.282 Q = 393.625

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.3135	.3836	.4666	
.250			-.0039		.0388	
.362		.0006				
.400				-.0329		
.419			-.0896			
.550				-.0516	-.0769	
.600						-.0067
.657		-.0544				
.700				-.1003		
.725			-.0866			-.0737
.750						
.806		-.0815				
.832		-.0407				
.850				-.1043		
.900			-.0856			-.0801
.951		-.0465				
.966		.0426				



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

(092087)

AVES 07-710 1A12C ON 11 S1 UPPER WING PRESSURE

MACH (1) = 3.002 BETA (0) = 7.350 PT0 = 2259.125 PO = 02.125 R/PT = 2.282 Q = 393.623

SECTION : LOWER WING PERCENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050	.3332	.4063	.4977
.250	.0725	.0499	
.362	.0090		
.400		-.0275	
.419	-.0662		
.550		-.0717	
.600	-.0471		-.0028
.697	-.0482		
.700		-.0958	
.725			
.750	-.0879		-.0703
.806			
.832	-.0788		
.850	-.0363		
.900		-.1008	
.951	-.0803		-.0328
.966	-.0396		

AMES 87-710 1A12C 01 71 01 UPPER WING PRESSURE (UB2090) (12 APR 74)

REFERENCE DATA

SPFT = 2690,000 SQ.FT. WPP = 933,000 IN.
 LVSF = 1328,000 IN. WPP = ,000 IN.
 EGSF = 118,000 IN. WPP = 400,000 IN.
 SCALE = ,0190 SCALE

PARAMETRIC DATA

ALPHA =	.000	POWER =	.000
GIMBAL =	3.000	RUDDER =	.000

COEFF (1) =	3.439	BETA (1) =	-7.660	PTD	= 2310.444	PO	= 30.000	R/FT	= 1.773	Q	= 260.000
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SECTION (1) ORBITER WING

[illegible]
$$\begin{aligned} \text{WACC} (1) &= 3.499 & \text{BETA} (2) &= -6.570 & \text{PTO} &= 2310.444 & \text{PO} &= 30.000 & \text{R/FY} &= 1.775 & \text{Q} &= 860.000 \end{aligned}$$

SECTION (1) ORBITER WING

12	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.0052	.0646		.1248
.250			-.0581		-.0533	
.562	-.0472					
.400				-.0517		
.419		-.0646				
.550			-.0816	-.0850		
.600						
.697	-.0836					-.0344
.700				-.0942		
.725			-.0735			
.750						
.806		-.0739			-.0839	
.832	-.0808					



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/2090)

AVES 87-710 1A12C C1 T1 S1 UPPER WING PRESSURE

MACH (1) = 3.499 BETA (2) = -6.570

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.850
.900
.951
.966
-0.0319
-0.0554
-0.0839
-0.0942
-0.0796

MACH (1) = 3.499 BETA (3) = -4.390 PTO = 2310.444 PO = 30.000 R/PT = 1.773 Q = 280.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.050
.250
.362
.400
.419
.550
.600
.697
.700
.725
.750
.806
.832
.850
.900
.951
.966
.0678
.1324
.2041
-0.0385
-0.0474
-0.0403
-0.0825
-0.0812
-0.0165
-0.0825
-0.0792
-0.0926
-0.0817
-0.0745
-0.0815
-0.0915
-0.0639
-0.0715
-0.0282

MACH (1) = 3.499 BETA (4) = -2.200 PTO = 2310.444 PO = 30.000 R/PT = 1.773 Q = 280.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.050
.250
.362
.400
.419
.550
.600
.697
.0641
.1537
.2711
-0.0331
-0.0387
-0.0381
-0.0614
-0.0805
-0.0790
-0.0050
-0.0603



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

WING 8"-71D 1A12C ON 1/81 UPPER WING PRESSURE (LB/IN²)

MACH (1) = 3.499 BETA (4) = -2.800

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/C .700 .725 .750 .808 .832 .850 .900 .951 .966

Y/B .2990 .4270 .5340 .6730 .7800 .8870
 .0948
 -.0773
 -.0752
 -.0734
 -.0825
 -.0931
 -.0844
 -.0630
 -.0682
 -.0320

MACH (1) = 3.499 BETA (5) = -.010 PTD = 2310.444 PO = 30.000 R/PT = 1.773 0 = 280.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/C .790 .820 .862 .900 .937 .970 .975 .985 .990 .995

Y/B .2990 .4270 .5340 .6730 .7800 .8870
 .1470 .2132 .3323
 -.0166
 -.0234
 -.0603
 -.0739
 -.0697
 .0086
 -.0603
 -.0666
 -.0773
 -.0697
 -.0766
 -.0825
 -.0860
 -.0801
 -.0657
 -.0292



WES 87-710 0-120 IN TO SL UPPER JING PRESSURE (UBZ000)

MACH (1) = 3.498 BETA (6) = 2.110 PTD = 2310.444 PO = 30.000 R/PT = 1.773 Q = 240.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .42 .5340 .6750 .7500 .8870

X/C

.090	.1940	.2763	.3406
.290	-.0120	.0099	
.342	-.0216		
.450		-.0120	
.419	-.0592		
.350		-.0685	-.0621
.600			.0206
.697	-.0360		
.700		-.0422	
.725		-.0797	
.750			-.0593
.806	-.0723		
.832	-.0598		
.850		-.0822	
.900		-.0783	-.0508
.951	-.0707		
.966	-.0156		

MACH (1) = 3.498 BETA (7) = 4.350 PTD = 2310.444 PO = 30.000 R/PT = 1.773 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090	.2612	.3331	.4407
.290	.0171	.0267	
.342	-.0107		
.400		-.0043	
.419	-.0246		
.350		-.0652	-.0572
.600			.0304
.697	-.0532		
.700		-.0790	
.725		-.0719	-.0512
.750			
.806	-.0729		
.832	-.0346		
.850		-.0801	
.900		-.0719	-.0442
.951	-.0879		
.966	-.0023		



DATE 05 DEC 74 REGULATED SOURCE DATA - (A12C WING PRESSURES) PAGE 691

MACH (1) = 3.499 BETA (8) = 5.540 PTD = 2310.444 PO = 30.000 R/P/T = 1.775 Q = 280.000
 ASES P7-P10 (A12C ON T1 S1 UPPER WING PRESSURE) (UP-2090)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.2990	.4270	.5340	.6730	.7800	.8870
.050	.3197	.3783	.5099				
.250	.0329	.0584					
.362	.0030						
.400		.0088					
.419	-.0476						
.550		-.0592	-.0468				
.600				.0440			
.697	-.0418						
.750		-.0692					
.725		-.0675					
.750			-.0403				
.806	-.0685						
.832	-.0458		-.0746				
.850		-.0648					
.900		-.0647			-.0390		
.931							
.966	.0204						

MACH (1) = 3.499 BETA (9) = 7.630 PTD = 2310.444 PO = 30.000 R/P/T = 1.775 Q = 280.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.2990	.4270	.5340	.6730	.7800	.8870
.050	.3504	.4156	.5435				
.250	.0377	.0735					
.362	.0111						
.400		.0158					
.419	-.0416						
.550		-.0560	-.0398				
.600				.0499			
.697	-.0374						
.700		-.0643					
.725		-.0670					
.750			-.0343				
.806	-.0636						
.832	-.0374						
.850		-.0708					
.900		-.0637			-.0328		
.931		-.0587					
.966	.0307						

TABULATED SOURCE DATA - 14120 (1) (2) (3) (4) (5)

(UB2091) (12 (PP 74)

1.55 84-710 10.20 CM 7.51 UPPER WING PRESSURE

REFERENCE DATA

SREF = 269.0000 SQ.FT. AREA = 305.0000 IN.
 WREF = 1324.0000 IN. AREA = 13.0000 IN.
 BREF = 1324.0000 IN. AREA = 400.0000 IN.
 SCALE = .0100 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
 PO = 23.880 SREF = .826
 RUDER = 3.000 RUDER = .000

MACH (1) = 3.499 BETA (1) = -7.640 PTO = 2303.333 PO = 30.000 R/PT = 1.765 Q = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6750	.7900	.8870
X/C						
.090						
.250						
.362						
.400						
.419						
.550						
.600						
.697						
.700						
.725						
.750						
.806						
.832						
.850						
.900						
.951						
.986						

MACH (1) = 3.499 BETA (2) = -6.570 PTO = 2303.333 PO = 30.000 R/PT = 1.765 Q = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6750	.7900	.8870
X/C						
.090						
.250						
.362						
.400						
.419						
.550						
.600						
.697						
.700						
.725						
.750						
.806						
.832						

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES)

AVES 87-710 1A12C ON T1 S1 UPPER WING PRESSURE (UB2091)

MACH (1) = 3.499 BETA (2) = -0.570

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.850 .0004
.900 .0004
.931 .0131
.968 .0235

MACH (1) = 3.499 BETA (3) = -4.380 PTO = 2903.333 PO = 30.000 R/PT = 1.765 Q = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.050 -.0038 .1323 .2103
.250 -.0974 -.0422
.362 -.0366 -.0427
.419 -.0546 -.0783
.550 -.0804 -.0190
.600
.697 -.0839
.700
.723 -.0496
.750
.808 -.0851
.832 -.0817
.850 -.0846
.900 -.0804
.931 -.0317
.968 -.0043

MACH (1) = 3.499 BETA (4) = -2.200 PTO = 2903.333 PO = 30.000 R/PT = 1.765 Q = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.050 .0718 .1595 .2795
.250 -.0356 -.0341
.362 -.0268
.400 -.0340
.415 -.0485
.550 -.0780 -.0761
.600
.697 -.0568



(LB/2091)

25 87-110 1100 1 11 81 1100 WING PRESSURE

MACH (1) = 3.499 BETA (1) = -2.800

SECTION (1) 110000 WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C					
.700					
.725					
.750					
.775					
.800					
.825					
.850					
.875					
.900					
.925					
.950					
.975					
.990					

MACH (1) = 3.499 BETA (1) = -2.800 P/B = 250.000 P/B = 1.765 Q = 259.111

SECTION (1) 110000 WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C					
.700					
.725					
.750					
.775					
.800					
.825					
.850					
.875					
.900					
.925					
.950					
.975					
.990					



DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES)

(UB 2091)

AMES 87-710 1A12C Q1 T1 S1 UPPER WING PRESSURE

MACH (1) = 3.499 BETA (6) = 2.170 P70 = 2303.333 PO = 30.000 R/FT = 1.765 Q = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B .2990 .4270 .5340 .6730 .7800 .8870

X/C					
.090	.1880	.2828	.3845		
.250	.0025	.0110			
.362	-.0122				
.400		-.0102			
.419					
.550	-.0548				
.600		-.0868	-.0815		.0218
.697	-.0921				
.700		-.0800			
.725		-.0538			
.750			-.0571		
.832	-.0717				
.840		-.0775			
.900		-.0680			-.0502
.951	-.0641				
.968	-.0084				

MACH (1) = 3.499 BETA (7) = 4.350 P70 = 2303.333 PO = 30.000 R/FT = 1.765 Q = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B .2990 .4270 .5340 .6730 .7800 .8870

X/C					
.090	.2644	.3428	.4452		
.250	.0174	.0282			
.362	-.0012				
.400		.0009			
.419					
.550	-.0514				
.600		-.0596	-.0527		.0351
.697	-.0454				
.700		-.0740			
.725					
.750		-.0483			-.0505
.832	-.0878				
.840					
.900		-.0756			-.0403
.951	-.0631				
.968	-.0851				

AVES 87-710 A12C ON T1 S1 UPPER WING PRESSURE

(UB 3094) (12 APR 74)

REFERENCE DATA

$WREF = 2490.0000$ SQ. FT. $WREF = 953.0000$ IN.
 $CREF = 1328.0700$ IN. $CREF = .0000$ IN.
 $CREF = 1328.0700$ IN. $CREF = 400.0000$ IN.
 $SCALE = .0190$ SCALE

PARAMETRIC DATA

$ALPHA = .000$ $POWER = .000$
 $GIMBAL = 3.000$ $RUDDER = .000$

$MACH (1) = 2.499$ $BETA (1) = -7.270$ $PTO = 2315.956$ $PO = 136.000$ $R/PY = 2.941$ $Q = 593.956$

SECTION (1) UPPER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090						
.290			-.0071	.0975	.1341	
.362			-.1093		-.0456	
.470						
.419			-.0372		-.1459	
.590						
.600			-.1264	-.1636		
.697						
.700			-.0961		-.1298	
.725						
.750			-.1371		-.1658	
.808						
.832			-.0667		-.1664	
.890						
.900			-.0916		-.1519	
.951			-.0437		-.1575	
.966			-.0306			

$MACH (1) = 2.499$ $BETA (2) = -6.240$ $PTO = 2315.956$ $PO = 136.000$ $R/PY = 2.941$ $Q = 593.956$

SECTION (1) LOWER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090						
.290			.0135	.1111	.1576	
.362			-.1269		-.0779	
.400						
.419			-.0546		-.1439	
.590						
.600			-.1327	-.1693		
.697						
.700			-.0966		-.1285	
.725						
.750			-.1390		-.1727	
.808						
.832			-.0680		-.1676	
.890						
.900			-.0422			

DATE 02 DEC 73 TABULATED SOURCE DATA - TABULATING PRESSURES

(B259A)

ANALYSIS OF VARIATION OF PRESSURE

WCH 1.1 2.499 BETA 1.1 = -2.132

SECTION 1.1 OBSERVED WING DEPENDENT VARIABLE CP

1.1 2.499 1.270 1.530 1.670 1.700 1.800

1/C

.700 -1.748
 .725 -1.519
 .750 -1.503
 .775 -1.086
 .800 -1.084
 .825 -1.719
 .850 -1.094
 .875 -1.0319
 .900 -1.1908
 .925 -1.0183

WCH 1.1 2.499 BETA 1.1 = -1.070 RPO = 2515.956 PO = 136.000 RPT = 2.341 Q = 993.956

SECTION 1.1 OBSERVED WING DEPENDENT VARIABLE CP

1.1 2.499 1.270 1.530 1.670 1.700 1.800

1/C

.700 1.464
 .725 -1.066
 .750 -1.066
 .775 -1.253
 .800 -1.152
 .825 -1.1729
 .850 -1.162
 .875 -1.1009
 .900 -1.0589
 .925 -1.1729
 .950 -1.0669
 .975 -1.0376
 .990 -1.0046



TABLED CASE DATA - AIR MAIL (25553)

(1307.97)

A-6907-110 LA2C C M D C-11 WIRE PRESSURE

[illegible]

SECTION: JOE LATER WING

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP	DQ	DR	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC	ED	EE	EF	EG	EH	EI	EJ	EK	EL	EM	EN	EO	EP	EQ	ER	ES	ET	EU	EV	EW	EX	EY	EZ	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ	FK	FL	FM	FN	FO	FP	FQ	FR	FS	FT	FU	FV	FW	FX	FY	FZ	GA	GB	GC	GD	GE	GF	GG	GH	GI	GJ	GK	GL	GM	GN	GO	GP	GQ	GR	GS	GT	GU	GV	GW	GX	GY	GZ	HA	HB	HC	HD	HE	HF	HG	HH	HI	HJ	HK	HL	HM	HN	HO	HP	HQ	HR	HS	HT	HU	HV	HW	HX	HY	HZ	IA	IB	IC	ID	IE	IF	IG	IH	II	IJ	IK	IL	IM	IN	IO	IP	IQ	IR	IS	IT	IU	IV	IW	IX	IY	IZ	JA	JB	JC	JD	JE	JF	JG	JH	JI	JJ	JK	JL	JM	JN	JO	JP	JQ	JR	JS	JT	JU	JV	JW	JX	JY	JZ	KA	KB	KC	KD	KE	KF	KG	KH	KI	KJ	KK	KL	KM	KN	KO	KP	KQ	KR	KS	KT	KU	KV	KW	KX	KY	KZ	LA	LB	LC	LD	LE	LF	LG	LH	LI	LJ	LK	LL	LM	LN	LO	LP	LQ	LR	LS	LT	LU	LV	LW	LX	LY	LZ	MA	MB	MC	MD	ME	MF	MG	MH	MI	MJ	MK	ML	MM	MN	MO	MP	MQ	MR	MS	MT	MU	MV	MW	MX	MY	MZ	NA	NB	NC	ND	NE	NF	NG	NH	NI	NJ	NK	NL	NM	NN	NO	NP	NQ	NR	NS	NT	NU	NV	NW	NX	NY	NZ	OA	OB	OC	OD	OE	OF	OG	OH	OI	OJ	OK	OL	OM	ON	OO	OP	OQ	OR	OS	OT	OU	OV	OW	OX	OY	OZ	PA	PB	PC	PD	PE	PF	PG	PH	PI	PJ	PK	PL	PM	PN	PO	PP	PQ	PR	PS	PT	PU	PV	PW	PX	PY	PZ	QA	QB	QC	QD	QE	QF	QG	QH	QI	QJ	QK	QL	QM	QN	QO	QP	QQ	QR	QS	QT	QU	QV	QW	QX	QY	QZ	RA	RB	RC	RD	RE	RF	RG	RH	RI	RJ	RK	RL	RM	RN	RO	RP	RQ	RR	RS	RT	RU	RV	RW	RX	RY	RZ	SA	SB	SC	SD	SE	SF	SG	SH	SI	SJ	SK	SL	SM	SN	SO	SP	SQ	SR	SS	ST	SU	SV	SW	SX	SY	SZ	TA	TB	TC	TD	TE	TF	TG	TH	TI	TJ	TK	TL	TM	TN	TO	TP	TQ	TR	TS	TT	TU	<th>TW</th> <th>TX</th> <th>TY</th> <th>TZ</th> <th>UA</th> <th>UB</th> <th>UC</th> <th>UD</th> <th>UE</th> <th>UF</th> <th>UG</th> <th>UH</th> <th>UI</th> <th>UJ</th> <th>UK</th> <th>UL</th> <th>UM</th> <th>UN</th> <th>UO</th> <th>UP</th> <th>UQ</th> <th>UR</th> <th>US</th> <th>UT</th> <th>UU</th> <th>UV</th> <th>UW</th> <th>UX</th> <th>UY</th> <th>UZ</th> <th>VA</th> <th>VB</th> <th>VC</th> <th>VD</th> <th>VE</th> <th>VF</th> <th>VG</th> <th>VH</th> <th>VI</th> <th>VJ</th> <th>VK</th> <th>VL</th> <th>VM</th> <th>VN</th> <th>VO</th> <th>VP</th> <th>VQ</th> <th>VR</th> <th>VS</th> <th>VT</th> <th>VU</th> <th>VV</th> <th>VW</th> <th>VX</th> <th>VY</th> <th>VZ</th> <th>WA</th> <th>WB</th> <th>WC</th> <th>WD</th> <th>WE</th> <th>WF</th> <th>WG</th> <th>WH</th> <th>WI</th> <th>WJ</th> <th>WK</th> <th>WL</th> <th>WM</th> <th>WN</th> <th>WO</th> <th>WP</th> <th>WQ</th> <th>WR</th> <th>WS</th> <th>WT</th> <th>WU</th> <th>WV</th> <th>WW</th> <th>WX</th> <th>WY</th> <th>WZ</th> <th>XA</th> <th>XB</th> <th>XC</th> <th>XD</th> <th>XE</th> <th>XF</th> <th>XG</th> <th>XH</th> <th>XI</th> <th>XJ</th> <th>XK</th> <th>XL</th> <th>XM</th> <th>XN</th> <th>XO</th> <th>XP</th> <th>XQ</th> <th>XR</th> <th>XS</th> <th>XT</th> <th>XU</th> <th>XV</th> <th>XW</th> <th>XX</th> <th>XY</th> <th>XZ</th> <th>YA</th> <th>YB</th> <th>YC</th> <th>YD</th> <th>YE</th> <th>YF</th> <th>YG</th> <th>YH</th> <th>YI</th> <th>YJ</th> <th>YK</th> <th>YL</th> <th>YM</th> <th>YN</th> <th>YO</th> <th>YP</th> <th>YQ</th> <th>YR</th> <th>YS</th> <th>YT</th> <th>YU</th> <th>YV</th> <th>YW</th> <th>YX</th> <th>YY</th> <th>YZ</th> <th>ZA</th> <th>ZB</th> <th>ZC</</th>	TW	TX	TY	TZ	UA	UB	UC	UD	UE	UF	UG	UH	UI	UJ	UK	UL	UM	UN	UO	UP	UQ	UR	US	UT	UU	UV	UW	UX	UY	UZ	VA	VB	VC	VD	VE	VF	VG	VH	VI	VJ	VK	VL	VM	VN	VO	VP	VQ	VR	VS	VT	VU	VV	VW	VX	VY	VZ	WA	WB	WC	WD	WE	WF	WG	WH	WI	WJ	WK	WL	WM	WN	WO	WP	WQ	WR	WS	WT	WU	WV	WW	WX	WY	WZ	XA	XB	XC	XD	XE	XF	XG	XH	XI	XJ	XK	XL	XM	XN	XO	XP	XQ	XR	XS	XT	XU	XV	XW	XX	XY	XZ	YA	YB	YC	YD	YE	YF	YG	YH	YI	YJ	YK	YL	YM	YN	YO	YP	YQ	YR	YS	YT	YU	YV	YW	YX	YY	YZ	ZA	ZB	ZC</
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[illegible]

WACH (1) =	2.499	BETA (7) =	4.050	PWC	= 2315.556	PO	= 136.000	R/PT	= 2.941	Q	= 993.596
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SECTION (1) ORBITER WING	DEPENDENT VARIABLE CP
1	0.000
2	0.000
3	0.000
4	0.000
5	0.000
6	0.000
7	0.000
8	0.000
9	0.000
10	0.000
11	0.000
12	0.000
13	0.000
14	0.000
15	0.000
16	0.000
17	0.000
18	0.000
19	0.000
20	0.000
21	0.000
22	0.000
23	0.000
24	0.000
25	0.000
26	0.000
27	0.000
28	0.000
29	0.000
30	0.000
31	0.000
32	0.000
33	0.000
34	0.000
35	0.000
36	0.000
37	0.000
38	0.000
39	0.000
40	0.000
41	0.000
42	0.000
43	0.000
44	0.000
45	0.000
46	0.000
47	0.000
48	0.000
49	0.000
50	0.000
51	0.000
52	0.000
53	0.000
54	0.000
55	0.000
56	0.000
57	0.000
58	0.000
59	0.000
60	0.000
61	0.000
62	0.000
63	0.000
64	0.000
65	0.000
66	0.000
67	0.000
68	0.000
69	0.000
70	0.000
71	0.000
72	0.000
73	0.000
74	0.000
75	0.000
76	0.000
77	0.000
78	0.000
79	0.000
80	0.000
81	0.000
82	0.000
83	0.000
84	0.000
85	0.000
86	0.000
87	0.000
88	0.000
89	0.000
90	0.000
91	0.000
92	0.000
93	0.000
94	0.000
95	0.000
96	0.000
97	0.000
98	0.000
99	0.000
100	0.000

	.6750	.7800	.8870
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[illegible]

DATE 08 DEC 74:

TAE LATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 661

AVES 87-710 1A12C OF T1 S1 UPPER WING PRESSURE

(LBZ094)

MACH (1) = 2.499 BETA (8) = 6.110 PTO = 2315.556 PO = 136,000 R/FY = 2.941 Q = 593.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.2804	.3311		.4215
.250			-.0670		.0034	
.362	-.0073					
.400			-.0944			
.419		-.1146				
.550			-.1532	-.1309		
.600						-.0666
.697	-.0794					
.700				-.1550		
.725			-.1605			
.750					-.1373	
.806		-.0935				
.832	-.0496			-.1569		
.850						
.900		-.0927				-.1059
.951		-.0460				
.966						

MACH (1) = 2.499 BETA (9) = 7.140 PTO = 2315.556 PO = 136,000 R/FY = 2.941 Q = 593.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.2817	.3535		.4466
.250			-.0594		.0162	
.362	.0020					
.400			-.0901			
.419		-.1107				
.550			-.1509	-.1285		
.600						-.0623
.697	-.0716					
.700				-.1533		
.725			-.1598			
.750					-.1342	
.806		-.0895				
.832	-.0422					
.850				-.1526		
.900		-.0680				-.0992
.941		-.0366				
.966						

CAR 04 DEC 4 TABULATED SOURCE DATA - (AIRFOIL PRESSURES)

AMES 87-710 (AIRFOIL 1) 1) UPPER AIR PRESSURE (LBZ095) (12 APR 74)

REFERENCE DATA

REF = 2540.0000 SQ.FT. ρ = 550 LBS/FT³
 LIFT = 1328.0000 IN. μ = 1.0000 IN.
 REF = 1328.0000 IN. μ = 400.0000 IN.
 SCALE = 10.00 SCALE

PARAMETRIC DATA

MACH (1) = 2.499 REYNOLDS = 2.72E6 PTO = 2505.100 PO = 135.100 R/PT = 2.916 Q = 590.800
 SECTION (1) ORBITER WING DEPENDENT VARIABLE CP
 Y/B .2090 .4270 .5340 .6730 .7800 .8870
 X/C
 .090 .0152 .0962 .1331
 .250 -.1075 -.0634
 .362 -.0583
 .400 -.1464
 .419 -.0978
 .590 -.1262 -.1639
 .600 -.1305
 .697 -.0985
 .700 -.1642
 .725 -.1345
 .750 -.1693
 .806 -.0660
 .832 -.0636
 .890 -.1497
 .900 -.0904
 .921 -.0423
 .966 -.0286
 .966 -.1578

MACH (1) = 2.499 BETA (2) = -6.240 PTO = 2505.100 PO = 135.100 R/PT = 2.916 Q = 590.800

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2090 .4270 .5340 .6730 .7800 .8870
 X/C
 .090 .0110 .1115 .1407
 .250 -.1272 -.0778
 .362 -.0598
 .400 -.1448
 .419 -.0969
 .590 -.1310 -.1695
 .600 -.1284
 .697 -.0945
 .700 -.1717
 .725 -.1358
 .750 -.1674
 .806 -.0691
 .832 -.0608



TABLETED SOURCE DATA - :A12C (WING PRESSURES)

VALUES 87.710 1A12C 01 Y1 31 UPPER WING PRESSURE
(UB 2095)

$\mu_{CH}(1) = 2.495$ $\mu_{CH}(2) = 2.247$

DEPENDENT VARIABLE: $\Delta \ln \text{WAGE}$

	.8670
	.7900
	.6715
	.5340
	.4275
	.2990

χ^2			
.850	-.576		
.900		-.0913	
.951			-.0385
.966			-.0252
			-.1547

1.966 - 0.232
 4.120
 2303.100
 PO = 135.100
 R/FT = 2.916
 Q = 590.600

INDEPENDENT VARIABLE	DEPENDENT VARIABLE
1. Age	2. Number of children
3. Sex	4. Number of children
5. Sex	6. Number of children
7. Sex	8. Number of children
9. Sex	10. Number of children
11. Sex	12. Number of children
13. Sex	14. Number of children
15. Sex	16. Number of children
17. Sex	18. Number of children
19. Sex	20. Number of children
21. Sex	22. Number of children
23. Sex	24. Number of children
25. Sex	26. Number of children
27. Sex	28. Number of children
29. Sex	30. Number of children
31. Sex	32. Number of children
33. Sex	34. Number of children
35. Sex	36. Number of children
37. Sex	38. Number of children
39. Sex	40. Number of children
41. Sex	42. Number of children
43. Sex	44. Number of children
45. Sex	46. Number of children
47. Sex	48. Number of children
49. Sex	50. Number of children
51. Sex	52. Number of children
53. Sex	54. Number of children
55. Sex	56. Number of children
57. Sex	58. Number of children
59. Sex	60. Number of children
61. Sex	62. Number of children
63. Sex	64. Number of children
65. Sex	66. Number of children
67. Sex	68. Number of children
69. Sex	70. Number of children
71. Sex	72. Number of children
73. Sex	74. Number of children
75. Sex	76. Number of children
77. Sex	78. Number of children
79. Sex	80. Number of children
81. Sex	82. Number of children
83. Sex	84. Number of children
85. Sex	86. Number of children
87. Sex	88. Number of children
89. Sex	90. Number of children
91. Sex	92. Number of children
93. Sex	94. Number of children
95. Sex	96. Number of children
97. Sex	98. Number of children
99. Sex	100. Number of children

	1960	1961	1962	1963	1964
... ..	2000	.4270	.5340	.6730	.7800 .8870

$x^{\circ}\text{C}$	η_{sp}/c	η_{sp}/c	η_{sp}/c
0.950	1.420		2.122
2.90	-13.5		-0.704

[illegible]

.700	
.725	- .1397
.750	- .1687

.832	-.0596		
.850		-.1673	
.800			-.0953
			-.1491

9.86	-.0219
9.81	-.0353

$\frac{1}{2} = 0.5$
 $\frac{1}{3} = 0.3333$
 $\frac{1}{4} = 0.25$
 $\frac{1}{5} = 0.2$
 $\frac{1}{6} = 0.1667$
 $\frac{1}{7} = 0.1429$
 $\frac{1}{8} = 0.125$
 $\frac{1}{9} = 0.1111$
 $\frac{1}{10} = 0.1$
 $\frac{1}{11} = 0.0909$
 $\frac{1}{12} = 0.0833$
 $\frac{1}{13} = 0.0769$
 $\frac{1}{14} = 0.0714$
 $\frac{1}{15} = 0.0667$
 $\frac{1}{16} = 0.0625$
 $\frac{1}{17} = 0.0588$
 $\frac{1}{18} = 0.0556$
 $\frac{1}{19} = 0.0526$
 $\frac{1}{20} = 0.05$
 $\frac{1}{21} = 0.0476$
 $\frac{1}{22} = 0.0455$
 $\frac{1}{23} = 0.0435$
 $\frac{1}{24} = 0.0417$
 $\frac{1}{25} = 0.04$
 $\frac{1}{26} = 0.0385$
 $\frac{1}{27} = 0.037$
 $\frac{1}{28} = 0.0357$
 $\frac{1}{29} = 0.0345$
 $\frac{1}{30} = 0.0333$
 $\frac{1}{31} = 0.0323$
 $\frac{1}{32} = 0.03125$
 $\frac{1}{33} = 0.0303$
 $\frac{1}{34} = 0.0294$
 $\frac{1}{35} = 0.0286$
 $\frac{1}{36} = 0.0278$
 $\frac{1}{37} = 0.027$
 $\frac{1}{38} = 0.0263$
 $\frac{1}{39} = 0.0256$
 $\frac{1}{40} = 0.025$
 $\frac{1}{41} = 0.0244$
 $\frac{1}{42} = 0.0238$
 $\frac{1}{43} = 0.0233$
 $\frac{1}{44} = 0.0227$
 $\frac{1}{45} = 0.0222$
 $\frac{1}{46} = 0.0217$
 $\frac{1}{47} = 0.0215$
 $\frac{1}{48} = 0.0208$
 $\frac{1}{49} = 0.0204$
 $\frac{1}{50} = 0.02$
 $\frac{1}{51} = 0.0196$
 $\frac{1}{52} = 0.0192$
 $\frac{1}{53} = 0.0189$
 $\frac{1}{54} = 0.0185$
 $\frac{1}{55} = 0.0182$
 $\frac{1}{56} = 0.0179$
 $\frac{1}{57} = 0.0175$
 $\frac{1}{58} = 0.0172$
 $\frac{1}{59} = 0.017$
 $\frac{1}{60} = 0.0167$
 $\frac{1}{61} = 0.0164$
 $\frac{1}{62} = 0.0161$
 $\frac{1}{63} = 0.0159$
 $\frac{1}{64} = 0.0156$
 $\frac{1}{65} = 0.0154$
 $\frac{1}{66} = 0.0152$
 $\frac{1}{67} = 0.0149$
 $\frac{1}{68} = 0.0147$
 $\frac{1}{69} = 0.0145$
 $\frac{1}{70} = 0.0143$
 $\frac{1}{71} = 0.0141$
 $\frac{1}{72} = 0.0139$
 $\frac{1}{73} = 0.0137$
 $\frac{1}{74} = 0.0135$
 $\frac{1}{75} = 0.0133$
 $\frac{1}{76} = 0.0132$
 $\frac{1}{77} = 0.013$
 $\frac{1}{78} = 0.0128$
 $\frac{1}{79} = 0.0127$
 $\frac{1}{80} = 0.0125$
 $\frac{1}{81} = 0.0123$
 $\frac{1}{82} = 0.0122$
 $\frac{1}{83} = 0.012$
 $\frac{1}{84} = 0.0119$
 $\frac{1}{85} = 0.0118$
 $\frac{1}{86} = 0.0116$
 $\frac{1}{87} = 0.0115$
 $\frac{1}{88} = 0.0114$
 $\frac{1}{89} = 0.0112$
 $\frac{1}{90} = 0.0111$
 $\frac{1}{91} = 0.011$
 $\frac{1}{92} = 0.0109$
 $\frac{1}{93} = 0.0108$
 $\frac{1}{94} = 0.0106$
 $\frac{1}{95} = 0.0105$
 $\frac{1}{96} = 0.0104$
 $\frac{1}{97} = 0.0103$
 $\frac{1}{98} = 0.0102$
 $\frac{1}{99} = 0.0101$
 $\frac{1}{100} = 0.01$

INDEPENDENT VARIABLE	DEPENDENT VARIABLE CP
1. Age	0.0000
2. Sex	0.0000
3. Education	0.0000
4. Income	0.0000
5. Health	0.0000
6. Religion	0.0000
7. Marital Status	0.0000
8. Employment	0.0000
9. Social Class	0.0000
10. Political Party	0.0000
11. Ethnicity	0.0000
12. Religion	0.0000
13. Marital Status	0.0000
14. Employment	0.0000
15. Social Class	0.0000
16. Political Party	0.0000
17. Ethnicity	0.0000
18. Religion	0.0000
19. Marital Status	0.0000
20. Employment	0.0000
21. Social Class	0.0000
22. Political Party	0.0000
23. Ethnicity	0.0000
24. Religion	0.0000
25. Marital Status	0.0000
26. Employment	0.0000
27. Social Class	0.0000
28. Political Party	0.0000
29. Ethnicity	0.0000
30. Religion	0.0000
31. Marital Status	0.0000
32. Employment	0.0000
33. Social Class	0.0000
34. Political Party	0.0000
35. Ethnicity	0.0000
36. Religion	0.0000
37. Marital Status	0.0000
38. Employment	0.0000
39. Social Class	0.0000
40. Political Party	0.0000
41. Ethnicity	0.0000
42. Religion	0.0000
43. Marital Status	0.0000
44. Employment	0.0000
45. Social Class	0.0000
46. Political Party	0.0000
47. Ethnicity	0.0000
48. Religion	0.0000
49. Marital Status	0.0000
50. Employment	0.0000
51. Social Class	0.0000
52. Political Party	0.0000
53. Ethnicity	0.0000
54. Religion	0.0000
55. Marital Status	0.0000
56. Employment	0.0000
57. Social Class	0.0000
58. Political Party	0.0000
59. Ethnicity	0.0000
60. Religion	0.0000
61. Marital Status	0.0000
62. Employment	0.0000
63. Social Class	0.0000
64. Political Party	0.0000
65. Ethnicity	0.0000
66. Religion	0.0000
67. Marital Status	0.0000
68. Employment	0.0000
69. Social Class	0.0000
70. Political Party	0.0000
71. Ethnicity	0.0000
72. Religion	0.0000
73. Marital Status	0.0000
74. Employment	0.0000
75. Social Class	0.0000
76. Political Party	0.0000
77. Ethnicity	0.0000
78. Religion	0.0000
79. Marital Status	0.0000
80. Employment	0.0000
81. Social Class	0.0000
82. Political Party	0.0000
83. Ethnicity	0.0000
84. Religion	0.0000
85. Marital Status	0.0000
86. Employment	0.0000
87. Social Class	0.0000
88. Political Party	0.0000
89. Ethnicity	0.0000
90. Religion	0.0000
91. Marital Status	0.0000
92. Employment	0.0000
93. Social Class	0.0000
94. Political Party	0.0000
95. Ethnicity	0.0000
96. Religion	0.0000
97. Marital Status	0.0000
98. Employment	0.0000
99. Social Class	0.0000
100. Political Party	0.0000
101. Ethnicity	0.0000
102. Religion	0.0000
103. Marital Status	0.0000
104. Employment	0.0000
105. Social Class	0.0000
106. Political Party	0.0000
107. Ethnicity	0.0000
108. Religion	0.0000
109. Marital Status	0.0000
110. Employment	0.0000
111. Social Class	0.0000
112. Political Party	0.0000
113. Ethnicity	0.0000
114. Religion	0.0000
115. Marital Status	0.0000
116. Employment	0.0000
117. Social Class	0.0000
118. Political Party	0.0000
119. Ethnicity	0.0000
120. Religion	0.0000
121. Marital Status	0.0000
122. Employment	0.0000
123. Social Class	0.0000
124. Political Party	0.0000
125. Ethnicity	0.0000
126. Religion	0.0000
127. Marital Status	0.0000
128. Employment	0.0000
129. Social Class	0.0000
130. Political Party	0.0000
131. Ethnicity	0.0000
132. Religion	0.0000
133. Marital Status	0.0000
134. Employment	0.0000
135. Social Class	0.0000

0000 42 50 5340 6300 7500 8800

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2001	1003	1192	
2002	050		

.405	- .1291
.419	- .1142

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1252 - 2234

1253 - 2235

1254 - 2236

1255 - 2237

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1257 - 2239

1258 - 2240

1259 - 2241

1260 - 2242

TABLED SOURCE DATA - TABLE 5 (CONTINUED)

(0.82094)

WING AREA = 155.100 SQ FT

WING CHORD = 2.499 BETA (1) = 0.132

SECTION (1) ORBITER WING

Y/B .2690 .4270 .5340 .6700 .7800 .8870

X/C

.700					
.725					
.750					
.808					
.832					
.850					
.900					
.931					
.966					

WING (1) = 2.499 BETA (5) = 0.132 P/B = 2005.100 P/B = 155.100 R/B = 2.916 Q = 990.800

SECTION (1) ORBITER WING

Y/B .2690 .4270 .5340 .6700 .7800 .8870

X/C

.090					
.290					
.362					
.400					
.419					
.550					
.600					
.697					
.700					
.725					
.750					
.808					
.832					
.850					
.900					
.931					
.966					



TABLED SOURCE DATA - 11.20 MG. P. 1.25

ANES APPLIED TO 11.20 MG. P. 1.25 (2.208)

WIND 11.20 MG. P. 1.25 = 150.000 P/PY = 2.955 Q = 593.000

SECTION 11.20 MG. P. 1.25

Y/B 1.2000 .4270 .5540 .6750 .7950 .9150 .9350

X/C	1.2000	.4270	.5540	.6750	.7950	.9150	.9350
.050			.1650	.2480		.33.2	
.050			-.0016			.0009	
.362	-.0466						
.400				-.1207			
.419		-.1244					
.590			-.1543	-.1525			
.600						-.1019	
.697	-.1008						
.700				-.1726			
.723			-.1616			-.1519	
.790							
.808		-.0903					
.832	-.0618			-.1728			-.1282
.890			-.0994				
.900							
.931		-.0491					
.966	.0186						

WIND 11.20 MG. P. 1.25 = 150.000 P/PY = 2.955 Q = 593.000

DEPENDENT VARIABLE CP

SECTION 11.20 MG. P. 1.25

Y/B 1.2000 .4270 .5540 .6750 .7950 .9150 .9350

X/C	1.2000	.4270	.5540	.6750	.7950	.9150	.9350
.050			.2144	.2632		.3755	
.050			-.0797			-.0191	
.362	.0286						
.400				-.1044			
.419		-.1216					
.590			-.1906	-.1391			
.600						-.0959	
.697	-.0950						
.700			-.1632				
.723					-.1459		
.790		-.0979					
.808							
.832	-.0536			-.1656			
.890			-.1010			-.1174	
.900							
.931		-.0563					
.966	.0409						



DATE 03 DEC 71

(LR 2098)

WES-AR-100 1A120 01 71 51 UPPER WING PRESSURE

WING 11 7 2.430 BETA 1.0 0.100 PWC = 2311.111 PO = 136.000 R/F = 2.955 0 = 593.000

DEFLECT VARIABLE CP

SECTION 1 UPPER WING

Y/C 8990 42PC 5340 6750 7400 8890

Y/C					
130	.2545	.3251			.4201
240	-.0674				-.0011
340	-.0079				
440		-.0971			
540					
640	.1144				
740		.1234			
840					-.0907
940	-.0400				
1040		-.1159			
1140					
1240		-.1001			-.1375
1340					
1440	-.0910				
1540	-.0400				
1640		-.1140			-.1041
1740					
1840	-.0943				
1940					
2040	-.0437				
2140					
2240	.0007				

WING 11 7 2.490 BETA 1.0 0.100 PWC = 2311.111 PO = 136.000 R/F = 2.955 0 = 593.000

DEFLECT VARIABLE CP

SECTION 1 UPPER WING

Y/C 8990 42PC 5340 6750 7400 8890

Y/C					
130	.2755	.3457			.4406
240	-.0624				.0195
340	.0047				
440		-.0900			
540					
640	-.1114				
740		-.1015			
840					-.0840
940	-.0723				
1040		-.1146			
1140					
1240		-.1006			-.1162
1340					
1440	-.0443				
1540					
1640	-.0450				-.1151
1740					
1840		-.0646			-.0700
1940					
2040	-.0367				
2140					
2240					

(UBZ100) (12 APR 74)

ANAL 87-710 1A12C ON T1 31 UPPER WING PRESSURE

REFERENCE DATA

SREF = 260.000 D SQ.FT. XMRP = 932.0000 IN.
 LREF = 1226.0000 IN. YMRP = .0000 IN.
 BREF = 1326.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
 CDR = 51.260 SWPR = .916
 GUNBAL = 4.000 RUDDER = .000

MACH (1) = 2.498 BETA (1) = -7.270 PTO = 2505.444 PO = 135.556 R/PT = 2.904 Q = 591.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 - .0185 .0924 .1314
 .250 -.1083 -.0882
 .362 -.0536 -.1477
 .400 -.0975 -.1652
 .419 -.1271 -.1652
 .500 -.0959 -.1302
 .600 -.0951
 .700 -.1354 -.1716
 .725 -.0646
 .750 -.0590 -.1502
 .806 -.0921 -.1567
 .832 -.0427
 .850 -.0280
 .900
 .951
 .966

MACH (1) = 2.498 BETA (2) = -6.240 PTO = 2505.444 PO = 135.556 R/PT = 2.904 Q = 591.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .0004 .1060 .1356
 .250 -.1262 -.0825
 .362 -.0605 -.1461
 .400 -.1009 -.1713
 .419 -.1315 -.1713
 .500 -.1304
 .600 -.0975
 .700 -.1736
 .725 -.1360
 .750 -.1693
 .806 -.0864
 .832 -.0627

DATE 05 DEC 70

RELATED SOURCE DATA - 1A12C WING PRESSURES:
 AVE 5 87-710 1A12C O1 T1 S1 UPPER WING PRESSURE
 (U27100)

MACH (1) = 2.498 BETA (2) = -6.260

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2950 .4270 .5340 .6730 .7800 .8870

X/C
 .850
 .900
 .951
 .966
 .0274
 .0409
 -.0221
 -.1579
 -.1563

MACH (1) = 2.498 BETA (3) = -4.180 PTO = 2305.444 PO = 135.556 R/FT = 2.904 Q = 591.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2950 .4270 .5340 .6730 .7800 .8870

X/C
 .050
 .050
 .362
 .400
 .419
 .550
 .600
 .697
 .700
 .725
 .750
 .806
 .832
 .850
 .900
 .951
 .966
 .0219
 .0841
 -.0975
 -.1060
 -.1315
 -.1432
 -.1816
 -.1548
 -.1408
 -.1451
 -.1698
 -.1225
 -.1401
 -.0751
 .2146

MACH (1) = 2.498 BETA (4) = -2.130 PTO = 2305.444 PO = 135.556 R/FT = 2.904 Q = 591.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2950 .4270 .5340 .6730 .7800 .8870

X/C
 .050
 .250
 .362
 .400
 .419
 .550
 .600
 .697
 .700
 .725
 .750
 .806
 .832
 .850
 .900
 .951
 .966
 .0219
 .0841
 -.0975
 -.1060
 -.1315
 -.1432
 -.1816
 -.1548
 -.1408
 -.1451
 -.1698
 -.1225
 -.1401
 -.0751
 .2146

DATE 05 DEC 74 TABULATED SOURCE DATA - 14000 WING PRESSURES

APES 97-710 1A12C 01 TO 50 OVER WING PRESSURE (0.2100)

MACH (1) = 2.498 BETA (4) = -2.130

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .700 -.1786
 .725 -.1499
 .750 -.1004
 .808 -.0940
 .832 -.0801
 .850 -.1748
 .900 -.1009
 .951 -.0304
 .966 -.1528

MACH (1) = 2.498 BETA (5) = -.070 PTD = 2305.444 PO = 135.536 R/FT = 2.904 Q = 591.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .090 .1434 .2088 .3019
 .250 -.1069 -.0510
 .362 -.0595
 .400 -.1270
 .419 -.1254
 .530 -.1580 -.1580
 .600 -.1096
 .697 -.1027
 .700 -.1755
 .725 -.1585
 .750 -.1603
 .808 -.1007
 .832 -.0987
 .850 -.1746
 .900 -.0965
 .951 -.1407
 .966 .0036



DATE 08 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

AVES 87-710 (A12C OF T1 S1 UPPER WING PRESSURE) (LBZ100)

WACH (1) = 2.498 BETA (1) = 1.950 PTO = 2905.444 PO = 135.556 7/FT = 2.904 0 = 591.444

SECTION (1) UPPER WING DEPENDENT VARIABLE CP

Y/B .2950 .4270 .5340 .6750 .7800 .8970

X/C
 .090 .1631 .2505 .3382
 .250 -.0453 -.0305
 .362 -.0463 -.1211
 .400 -.1256 -.1549
 .419 -.1552 -.1549
 .550 -.1025
 .600
 .697 -.1026
 .700
 .725
 .750
 .776
 .812
 .830
 .900
 .951
 .966 .0160

WACH (1) = 2.498 BETA (1) = 4.000 PTO = 2905.444 PO = 135.556 7/FT = 2.904 0 = 591.444

SECTION (1) LOWER WING DEPENDENT VARIABLE CP

Y/B .2950 .4270 .5340 .6750 .7800 .8970

X/C
 .090 .2184 .2660 .3795
 .250 -.0792 -.0203
 .362 -.0256 -.1056
 .400 -.1218 -.1410
 .419
 .550
 .600
 .697 -.0939
 .700
 .725
 .750
 .776
 .812
 .830
 .900
 .951
 .966 .0386



(082100)

DESIGNED AND PRESSURE

WACH (1) = 2.496 BETA (8) = 7.140 PTO = 2305.444 PO = 135.556 R/PT = 2.904 Q = 591.444

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.2587	.3224		.4203
.250			-.0666		-.0709	
.362	-.0084			-.0981		
.400						
.419		-.1134				
.550			-.1551	-.1341		
.600						-.0874
.697	-.0791					
.700				-.1580		
.725			-.1616			
.750					-.1404	
.806		-.0956				
.832	-.0485			-.1590		
.850						
.900			-.0947			-.1070
.951		-.0447				
.966	.0836					

WACH (1) = 2.496 BETA (8) = 7.140 PTO = 2305.444 PO = 135.556 R/PT = 2.904 Q = 591.444

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.2803	.3513		.4448
.250			-.0825		.0091	
.362	.0016					
.400				-.0931		
.419		-.1126				
.550			-.1534	-.1304		
.600						-.0836
.697	-.0791					
.700				-.1568		
.725			-.1591			
.750					.1377	
.806		-.0912				
.832	-.0441			-.1568		
.850						-.1001
.900			-.0873			
.951		-.0403				
.966	.0610					



WING 1/2-110 1A12C ON T1 S1 UPPER WING PRESSURE (UBZ101) (12 APR 74)

REFERENCE DATA

REF = 2850.0000 SQ.FT. XREF = 993.0000 IN.
 YREF = 1328.0000 IN. MREF = .0000 IN.
 ZREF = 1426.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = .000
 GIMBAL = 4.000 RUDDER = .000

MACH (1) = 3.002 BETA (1) = -7.290 PTO = 2312.889 PO = 63.000 R/FY = 2.235 Q = 396.000

SECTION (1) 1108BITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 -.0187 .0810 .1528
 .250 -.0885 -.0711
 .362 -.0538
 .400 -.0926
 .419 -.0774
 .550 -.1043 -.1226
 .600 -.0694
 .697 -.0746
 .700 -.1298
 .725 -.0976
 .750 -.1208
 .806 -.0835
 .832 -.0656
 .850 -.1262
 .900 -.0847
 .951 -.1148
 .966 -.0298

MACH (1) = 3.002 BETA (2) = -6.240 PTO = 2312.889 PO = 63.000 R/FY = 2.235 Q = 396.000

SECTION (1) 1108BITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .0271 .1064 .1230
 .250 -.0850 -.0629
 .362 -.0960
 .400 -.0694
 .419 -.0632
 .550 -.1118 -.1223
 .600 -.0712
 .697 -.0778
 .700 -.1330
 .725 -.1038
 .750 -.1173
 .806 -.0878
 .832 -.0665



DATE 05/11/77 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(UBZ101)

MACH (1) = 3.002 BETA (2) = -0.240

ALTS 87-710 1A12C ON 1/2 S. UPPER WING PRESSURE

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.350
.900
.951
.966
-0.0255
-0.1234
-0.0919
-0.0492
-0.1113

MACH (1) = 3.002 BETA (3) = -4.150 PTU = 2312.889 PO = 63.000 R/FT = 2.235 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.080
.290
.362
.400
.419
.590
.600
.697
.700
.725
.750
.806
.832
.850
.900
.951
.966
.0493
-0.0764
-0.0593
-0.0833
-0.0789
-0.1100
-0.1201
-0.0562
-0.1301
-0.1083
-0.1133
-0.1278
-0.0940
-0.1041
-0.0431
-0.0216

MACH (1) = 3.002 BETA (4) = -2.080 PTU = 2312.889 PO = 63.000 R/FT = 2.235 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090
.290
.362
.400
.419
.590
.600
.697
.0999
-0.0663
-0.0546
-0.0779
-0.0828
-0.1100
-0.1122
-0.0511
-0.0799



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(UB 2101)

AVES 07-710 1A12C ON T1 S1 UPPER WING PRESSURE

MACH (1) = 3.002 BETA (4) = -2.060

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/S .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .700 -.1269
 .725 -.1108
 .750 -.1083
 .806 -.0514
 .832 -.0666
 .850 -.1248
 .890 -.1047
 .900 -.1046
 .931 -.0573
 .966 -.0251

MACH (1) = 3.002 BETA (5) = .030 P70 = 2312.669 PO = 65.000 R/PT = 2.239 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/S .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .050 .1952 .2223 .3169
 .250 -.0563 -.0239
 .362 -.0449 -.0679
 .400 -.0687 -.1044
 .419 -.1093 -.1044
 .530 -.0397
 .600 -.1205
 .697 -.1115
 .700 -.1037
 .725 -.0950
 .750 -.1208
 .806 -.1021
 .832 -.0937
 .850 -.0846
 .900 -.0220
 .931
 .966



DATE 08 JUN 74 TABULATED SOURCE DATA - ALL WIND MEASURES

AGES 07-710 1120 02 74 SI UPPER WIND PRESSURE (08Z101)

WACH (1) = 3.002 BETA (6) = 2.125 PTO = 2312.869 PO = 63.000 R/PT = 2.235 Q = 396.000

SECTION (1) 11081700 WIND DEPENDENT VARIABLE

Y/B .8990 .4270 .5340 .6730 .7600 .8670

X/C
 .090 .1825 .2743 .3614
 .290 -.0409 -.0324
 .362 -.0334
 .400 -.0672
 .419 -.0826
 .590 -.1026 -.1044
 .600 -.0316
 .697 -.0756
 .700 -.1194
 .725 -.1106
 .730 -.0947
 .806 -.0935
 .832 -.0831
 .850 -.1162
 .900 -.1040
 .951 -.0663
 .966 -.0044

WACH (1) = 3.002 BETA (7) = 4.810 PTO = 2312.869 PO = 63.000 R/PT = 2.235 Q = 396.000

SECTION (1) 11081700 WIND DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6730 .7600 .8670

X/C
 .090 .2577 .3269 .4079
 .290 -.0262 .0191
 .362 -.0206
 .400 -.0489
 .419 -.0796
 .590 -.1010 -.0906
 .600 -.0225
 .697 -.0706
 .700 -.1112
 .725 -.1051
 .730 -.0672
 .806 -.0662
 .832 -.0592
 .850 -.1126
 .900 -.1015
 .951 -.0809
 .966 .0166



DATE 08 DEC 74

CALCULATED SOURCE DATA - 1A1EC (WING PRESSURES)

PAGE 001

A/E5 87-710 1A12C 01 71 31 UPPER WING PRESSURE (LBZ101)

MACH (1) = 3.002 BETA (A) = 6.710 PTO = 2312.869 PO = 63.000 R/PT = 2.235 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	CP
.090	.3100	.3776
.290	-.0027	.0535
.362	-.0051	
.400		-.0596
.419	-.0746	
.590	-.0946	-.0406
.600		-.0190
.697	-.0806	
.700		-.1047
.725	-.1022	
.750		-.0790
.806	-.0657	
.832	-.0466	
.850		-.1063
.900	-.0911	
.951	-.0902	-.0651
.966	.0379	

MACH (1) = 3.002 BETA (9) = 7.350 PTO = 2312.869 PO = 63.000 R/PT = 2.235 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	CP
.090	.3306	.4026
.290	-.0026	.0466
.362	.0046	
.400		-.0342
.419	-.0713	
.590	-.0925	-.0746
.600		-.0093
.697	-.0531	
.700		-.1015
.725	-.1006	
.750		-.0757
.806	-.0635	
.832	-.0409	
.850		-.1056
.900	-.0672	
.951	-.0441	-.0579
.966	.0315	



STABILATED SOURCE DATA - 112C (WING PRESSURES)

(b)(7)(D)

AMES 87-110 1A12C ON T1 S1 UPPER WING PRESSURE

$$\text{WACH} (1) = 3.002 \quad \text{BETA} (2) = -0.250$$

SECTION (1) CROSSLER WING

[illegible]

C		
.990		
.90		
.51		
.996		
	-.0221	
	-.0310	
	-.0013	
	-.0024	
		-.0756

[illegible]

SECTION / VARIABLE

[illegible]

C	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
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[illegible]

DEPENDENT VARIABLE CP

	1960	1970	1980	1990
Population	1,000	1,000	1,000	1,000
GDP per capita	1,000	1,000	1,000	1,000
Life expectancy at birth	1,000	1,000	1,000	1,000
Urban population	1,000	1,000	1,000	1,000
Employment	1,000	1,000	1,000	1,000
Government expenditure	1,000	1,000	1,000	1,000
Health expenditure	1,000	1,000	1,000	1,000
Education expenditure	1,000	1,000	1,000	1,000
Infrastructure expenditure	1,000	1,000	1,000	1,000
Research and development expenditure	1,000	1,000	1,000	1,000
Foreign aid	1,000	1,000	1,000	1,000
Trade share of GDP	1,000	1,000	1,000	1,000
FDI inflows as % of GDP	1,000	1,000	1,000	1,000
Debt service ratio	1,000	1,000	1,000	1,000
Corruption index	1,000	1,000	1,000	1,000
Gender inequality index	1,000	1,000	1,000	1,000
Human Development Index	1,000	1,000	1,000	1,000
Environmental quality index	1,000	1,000	1,000	1,000
Social capital index	1,000	1,000	1,000	1,000
Innovation index	1,000	1,000	1,000	1,000
Digital divide index	1,000	1,000	1,000	1,000
Economic freedom index	1,000	1,000	1,000	1,000
Political rights index	1,000	1,000	1,000	1,000
Civil liberties index	1,000	1,000	1,000	1,000
Press freedom index	1,000	1,000	1,000	1,000
Academic freedom index	1,000	1,000	1,000	1,000
Artistic freedom index	1,000	1,000	1,000	1,000
Religious freedom index	1,000	1,000	1,000	1,000
Labor rights index	1,000	1,000	1,000	1,000
Consumer protection index	1,000	1,000	1,000	1,000
Product safety index	1,000	1,000	1,000	1,000
Food safety index	1,000	1,000	1,000	1,000
Medicine safety index	1,000	1,000	1,000	1,000
Air pollution index	1,000	1,000	1,000	1,000
Water pollution index	1,000	1,000	1,000	1,000
Soil pollution index	1,000	1,000	1,000	1,000
Nuclear power index	1,000	1,000	1,000	1,000
Renewable energy index	1,000	1,000	1,000	1,000
Space exploration index	1,000	1,000	1,000	1,000
Artificial intelligence index	1,000	1,000	1,000	1,000
Bioethics index	1,000	1,000	1,000	1,000
Genetic engineering index	1,000	1,000	1,000	1,000
Climate change index	1,000	1,000	1,000	1,000
Ocean acidification index	1,000	1,000	1,000	1,000
Deforestation index	1,000	1,000	1,000	1,000
Biodiversity loss index	1,000	1,000	1,000	1,000
Antarctica research index	1,000	1,000	1,000	1,000
Polar regions index	1,000	1,000	1,000	1,000
Arctic region index	1,000	1,000	1,000	1,000
Subsistence agriculture index	1,000	1,000	1,000	1,000
Commercial agriculture index	1,000	1,000	1,000	1,000
Fishing industry index	1,000	1,000	1,000	1,000
Forestry index	1,000	1,000	1,000	1,000
Mining industry index	1,000	1,000	1,000	1,000
Manufacturing index	1,000	1,000	1,000	1,000
Service sector index	1,000	1,000	1,000	1,000
Information technology index	1,000	1,000	1,000	1,000
Telecommunications index	1,000	1,000	1,000	1,000
Transportation index	1,000	1,000	1,000	1,000
Energy production index	1,000	1,000	1,000	1,000
Electricity consumption index	1,000	1,000	1,000	1,000
Gas production index	1,000	1,000	1,000	1,000
Oil production index	1,000	1,000	1,000	1,000
Coal production index	1,000	1,000	1,000	1,000
Natural gas consumption index	1,000	1,000	1,000	1,000
Oil consumption index	1,000	1,000	1,000	1,000
Coal consumption index	1,000	1,000	1,000	1,000
Natural gas consumption index	1,000	1,000	1,000	1,000
Oil consumption index	1,000	1,000	1,000	1,000
Coal consumption index	1,000	1,000	1,000	1,000
Natural gas consumption index	1,000	1,000	1,000	1,000
Oil consumption index	1,000	1,000	1,000	1,000
Coal consumption index	1,000	1,000	1,000	1,000
Natural gas consumption index	1,000	1,000	1,000	1,000
Oil consumption index	1,00			

Variable	Mean	Standard deviation	Skewness	Kurtosis	Normality test
Age	35.2	12.5	0.12	2.15	0.98
Gender	1.5	1.0	-0.05	1.98	0.99
Marital status	2.1	1.1	0.08	2.05	0.97
Education	14.5	2.3	-0.15	2.25	0.96
Income	18.5	5.2	0.25	2.35	0.95
Occupation	3.2	1.8	-0.10	2.10	0.98
Religion	1.8	1.0	0.02	1.95	0.99
Political affiliation	2.5	1.2	0.18	2.40	0.94
Health status	2.8	1.1	-0.08	2.00	0.97
Life satisfaction	3.5	1.5	0.30	2.50	0.92
Stress level	4.2	1.8	0.20	2.30	0.95
Resilience	3.8	1.4	-0.12	2.15	0.96
Emotional stability	3.2	1.2	0.05	2.05	0.98
Life satisfaction	3.5	1.5	0.30	2.50	0.92
Stress level	4.2	1.8	0.20	2.30	0.95
Resilience	3.8	1.4	-0.12	2.15	0.96
Emotional stability	3.2	1.2	0.05	2.05	0.98

TABULATED SOURCE DATA - 140000 TO 150000

(UB 2104)

MACH (1) = 3.032 BETA (4) = -2.040

SECTION 1) ORBITER WING

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.700				-.1209		
.725			-.1035			
.750				-.1069		
.775						
.800			-.0606			
.825		-.0666				
.850			-.1231			
.875						
.900			-.1053			-.1034
.925						
.950			-.0516			
.975						
.995		-.0572				

MACH (1) = 3.032 BETA (5) = .020 P10 = 2301.776 P0 = 62.444 P/PY = 2.207 3 = 353.689

SECTION 1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090						
.290			.1466	.2113		.3109
.392		-.0499		-.1546		
.400						
.419			-.0663	-.0700		
.550				-.1063		
.600			-.1116			-.0407
.697		-.0807				
.700				-.1236		
.725			-.1036			
.750					-.1056	
.806		-.0672				
.832		-.0666				
.850				-.1207		
.900			-.1036			-.0967
.951			-.0633			
.966		-.0534				



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.002 BETA (6) = 2.120 PTO = 2301.776 PO = 62.444 R/FT = 2.207 Q = 393.869
 ASES 87-710 1A12C ON T1 S1 UPPER WING PRESSURE (LBZ104)

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B	.2990	.4270	.5540	.6730	.7800	.8870
X/C						
.097			.1741	.2693	.3579	
.290			-.0445	-.0062		
.362	-.0354					
.400			-.0636			
.419		-.0681				
.550			-.1046	-.1031		
.600					-.0335	
.697	-.0779					
.700			-.1218			
.725			-.1036		-.0970	
.750						
.806		-.0969				
.832	-.0646			-.1186		
.850			-.1025		-.0868	
.900						
.931		-.0666				
.966	-.0080					

MACH (1) = 3.002 BETA (7) = 4.210 PTO = 2301.776 PO = 62.444 R/FT = 2.207 Q = 393.869

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B	.2990	.4270	.5540	.6730	.7800	.8870
X/C						
.090			.2538	.3197	.4080	
.290			-.0262		.0142	
.362	-.0215					
.400			-.0515			
.419		-.0601				
.550			-.1016	-.0936		
.600					-.0243	
.697	-.0693					
.700			-.1143			
.725			-.1010		-.0902	
.750						
.806		-.0901				
.832	-.0374					
.850			-.1132			
.900		-.1024			-.0760	
.931		-.0610				
.966	.0147					



DATE 08 DEC 74 TABULATED SOURCE DATA - (A120 C200 PRESSURES)

AREA 87-710 (A120 C200 81 UPPER WING PRESSURE) (UP2104)

MACH (1) = 3.002 BETA (A) = 5.300 PTO = 2301.778 PO = 62.444 R/FT = 2.207 Q = 393.669

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8970
X/C						
.090			.3033	.3731		.4809
.250			-.10125		.0365	
.362	-.0068					
.400				-.10431		
.419		-.0770				
.550			-.0889	-.0864		
.600						-.10156
.697	-.0809					
.700				-.1075		
.725			-.0972		-.0807	
.750						
.806		-.0865				
.832	-.0467			-.1104		
.850			-.0940			-.0661
.900						
.951		-.0537				
.965	.0361					

MACH (1) = 3.002 BETA (A) = 7.340 PTO = 2301.778 PO = 62.444 R/FT = 2.207 Q = 393.669

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8970
X/C						
.090			.3238	.3970		.4897
.250			-.0090		.0434	
.362	.0016					
.400				-.0363		
.419		-.0759				
.550			-.0522	-.0764		
.600						-.0109
.697	-.0563					
.700				-.1038		
.725			-.0975		-.0783	
.750						
.806		-.0872				
.832	-.0455			-.1076		
.850			-.0673			-.0608
.900						
.951		-.0506				
.966	.0463					



TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(UBZ105) (12 APR 74)

AMES 87-717 1A12C 01 T1 S1 UPPER WING PRESSURE

REFERENCE DATA

YPR	=	2490.0000	93.77,	YPRP	=	953.0000	IN.
LCY	=	1328.0000	IN.	YPRP	=	.0000	IN.
YPRP	=	1328.0000	IN.	ZPRP	=	400.0000	IN.
SCALE	=		.0190	SCALE	=		

PARAMETRIC DATA

ALPHA =	.000	POWER =	.000
GIMBAL =	4.000	RUDDER =	.000

400	DETA	(1)	=	-7.67	PO	=	30,000	R/FY	=	1.741	Q	=	260.444
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SECTION / INCIDENT WING

[illegible][illegible]

SECTION / LICHTSTER WING

$$\text{BETA} (2) = -8.580 \quad \text{PTO} = 2314.111 \quad \text{PO} = 30,000 \quad \text{R/FY} = 1.741 \quad Q = 280,444$$

	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915	1914	1913	1912	1911	1910	1909	1908	1907	1906	1905	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	1894	1893	1892	1891	1890	1889	1888	1887	1886	1885	1884	1883	1882	1881	1880	1879	1878	1877	1876	1875	1874	1873	1872	1871	1870	1869	1868	1867	1866	1865	1864	1863	1862	1861	1860	1859	1858	1857	1856	1855	1854	1853	1852	1851	1850	1849	1848	1847	1846	1845	1844	1843	1842	1841	1840	1839	1838	1837	1836	1835	1834	1833	1832	1831	1830	1829	1828	1827	1826	1825	1824	1823	1822	1821	1820	1819	1818	1817	1816	1815	1814	1813	1812	1811	1810	1809	1808	1807	1806	1805	1804	1803	1802	1801	1800	1799	1798	1797	1796	1795	1794	1793	1792	1791	1790	1789	1788	1787	1786	1785	1784	1783	1782	1781	1780	1779	1778	1777	1776	1775	1774	1773	1772	1771	1770	1769	1768	1767	1766	1765	1764	1763	1762	1761	1760	1759	1758	1757	1756	1755	1754	1753	1752	1751	1750	1749	1748	1747	1746	1745	1744	1743	1742	1741	1740	1739	1738	1737	1736	1735	1734	1733	1732	1731	1730	1729	1728	1727	1726	1725	1724	1723	1722	1721	1720	1719	1718	1717	1716	1715	1714	1713	1712	1711	1710	1709	1708	1707	1706	1705	1704	1703	1702	1701	1700	1699	1698	1697	1696	1695	1694	1693	1692	1691	1690	1689	1688	1687	1686	1685	1684	1683	1682	1681	1680	1679	1678	1677	1676	1675	1674	1673	1672	1671	1670	1669	1668	1667	1666	1665	1664	1663	1662	1661	1660	1659	1658	1657	1656	1655	1654	1653	1652	1651	1650	1649	1648	1647	1646	1645	1644	1643	1642	1641	1640	1639	1638	1637	1636	1635	1634	1633	1632	1631	1630	1629	1628	1627	1626	1625	1624	1623	1622	1621	1620	1619	1618	1617	1616	1615	1614	1613	1612	1611	1610	1609	1608	1607	1606	1605	1604	1603	1602	1601	1600	1599	1598	1597	1596	1595	1594	1593	1592	1591	1590	1589	1588	1587	1586	1585	1584	1583	1582	1581	1580	1579	1578	1577	1576	1575	1574	1573	1572	1571	1570	1569	1568	1567	1566	1565	1564	1563	1562	1561	1560	1559	1558	1557	1556	1555	1554	1553	1552	1551	1550	1549	1548	1547	1546	1545	1544	1543	1542	1541	1540	1539	1538	1537	1536	1535	1534	1533	1532	1531	1530	1529	1528	1
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	090	.0000	.0744	.1210
250		-.0621		-.0595
362				
400	-.0474		-.0584	
419		-.0675		
550		-.0871	-.0932	-.0406
600				
697	-.0642		-.0597	
702				
725		-.0807		
750				-.0899
806		-.0767		
832	-.0437			

MACH (1) = 3.499 BETA (2) = -6.000 (JBZ105)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .850
 .900
 .951
 .966
 -.0348
 -.0561
 -.0878
 -.10997
 -.0283

MACH (1) = 3.499 BETA (3) = -4.380 PTC = 2314.111 PO = 30.000 R/PT = 1.741 Q = 280.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .050
 .250
 .362
 .400
 .419
 .550
 .600
 .697
 .700
 .725
 .790
 .806
 .832
 .890
 .900
 .951
 .966
 -.0283
 -.0642
 -.0846
 -.0844
 -.0634
 -.0987
 -.0502
 -.0583
 -.0842
 -.0970
 -.0836
 -.0810
 -.0761
 -.0221
 -.0887

MACH (1) = 3.499 BETA (4) = -2.200 PTO = 2314.111 PO = 30.000 R/PT = 1.741 Q = 280.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .050
 .250
 .362
 .400
 .419
 .550
 .600
 .697
 -.0642
 -.0804
 -.0817
 -.0645
 -.0096
 -.0432
 -.0453
 .2602



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LBZ105)

AWES 87-710 1A12C ON T1 50 UPPER WING PRESSURE

MACH (1) = 3.499 BETA (4) = -2.200

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B .2590 .4270 .5340 .6730 .7800 .8870

X/C

.700 -.0987

.725

.750 -.0840

.775

.800 -.0741

.832

.850 -.0646

.900

.951 -.0699

.966

-.0343

-.1003

-.0727

MACH (1) = 3.499 BETA (5) = -.020 PTO = 2314.111 PO = 30.000 R/FT = 1.741 Q = 880.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B .2590 .4270 .5340 .6730 .7800 .8870

X/C

.090

.250 .1594

.362 -.0212

.400 -.0332

.419 -.0264

.550 -.0631

.600 -.0773

.697 -.0810

.700 -.0927

.725 -.0640

.750 -.0756

.806 -.0769

.832 -.0837

.850 -.0908

.900 -.0687

.951 -.0686

.966 -.0316

-.0197

.3259

.0035

-.0678

DATE 03 SEP 74 TABULATED SOURCE DATA - 1/12/0000 MEASURES

(032103)

ATES 37-710 14100 M 14 SI UPPER WING PRESSURE

MACH (1) = 3.499 BETA (P) = 2.190 PTO = 2314.111 PO = 30.000 R/PT = 1.741 Q = 260.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.080			.1788	.2675	.0003	.3789
.250			-.0039			
.362	-.0287					
.400			-.0209			
.419		-.0621				
.550			-.0697	-.0720		
.600					.0121	
.697	-.0599					
.700			-.0602	-.0910		
.725					-.0682	
.806		-.0795				
.832	-.0657			-.0654		
.890			-.0607		-.0580	
.900		-.0751				
.951						
.966	-.0197					

MACH (1) = 3.499 BETA (P) = 4.350 PTO = 2314.111 PO = 30.000 R/PT = 1.741 Q = 260.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.2540	.3253	.4312	
.250			.0141		.0161	
.362	-.0137					
.400			-.0100			
.419		-.0567				
.550			-.0643	-.0628		
.600					.0257	
.697	-.0550					
.700			-.0651			
.725			-.0769			
.750					-.0808	
.806		-.0746				
.832	-.0547					
.890			-.0672			
.900		-.0775			-.0482	
.951		-.0706				
.966	-.0026					



DATE 06 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(UB2103)

AVES 87-710 1A12C O1 T1 S1 UPPER WING PRESSURE

MACH (1) = 3.499 BETA (8) = 6.550 PTO = 2314.111 PO = 30.000 R/P/T = 1.741 Q = 200.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .8990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .3147 .3590 .0483 .4951
 .290 .0289
 .362 -.0016
 .400
 .419
 .590
 .600
 .697 -.0463
 .700
 .725
 .750
 .806
 .832 -.0501
 .890
 .900
 .951
 .966 .0153

MACH (1) = 3.499 BETA (9) = 7.650 PTO = 2314.111 PO = 30.000 R/P/T = 1.741 Q = 200.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .3416 .4072 .0591 .5374
 .290 .0364
 .362 .0070
 .400
 .419
 .590
 .600
 .697 -.0414
 .700
 .725
 .750
 .806
 .832 -.0463
 .890
 .900
 .951
 .966 .0261



DATE 05 DEC '4 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(0.2708)

AMES 07-710 1A12C Q1 T1 S1 UPPER WING PRESSURE

MACH (1) = 3.499 BETA (2) = -0.570

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.890
.900
.951
.966
.0309
.0016
-.0027
.0105
.0213

MACH (1) = 3.499 BETA (3) = -4.390 PTO = 2309.222 PO = 30.111 R/PT = 1.729 Q = 259.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.050
.270
.362
.400
.419
.590
.600
.697
.700
.723
.750
.790
.806
.832
.890
.900
.951
.966
.0049
.0299
-.0349
-.0372
-.0369
-.0411
-.0379
-.0460
-.0275
-.0216
-.0337
-.0241
-.0259
-.0160
-.0200
-.0037
.1254
-.0365
-.0259
-.0379
-.0278
-.0216
-.0037
.2008
-.0365
-.0259
-.0379
-.0278
-.0216
-.0037
.0111

MACH (1) = 3.499 BETA (4) = -2.200 PTO = 2309.222 PO = 30.111 R/PT = 1.729 Q = 259.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.090
.290
.362
.400
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.590
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.0049
.0644
-.0427
-.0369
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(U8Z108;

VALUES 07-710 1A12C M T1 S1 UPPER WING PRESSURE

MACH 1 = 3.499 BETA (A) = -2.200

DEPENDENT VARIABLE: ΔF

[illegible]

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9065 -

.725
-.0694

054
-C 297

-0747

152 - .0888

-.0889

900
- 0785

-.0476

ICE:

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$$\begin{aligned} \text{MAOH} (1) &= 3.42J \\ \text{BETA} (5) &= -.010 \\ \text{PTM} &= 2309.222 \text{ PO} \\ &= 30.111 \text{ (V)} \end{aligned}$$

SECTION / 11081TER WING

DEPENDENT VARIABLE CP

	.8870	.7600	.6750	.5340	.4270	.2990	
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	.050	.1300	.1900	.3242
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290
-00227

362 -0314

400
-0915

419 --.0001

530 -.0775 -.0770

[illegible]

697 -0050

-.0901

-.0630

750

-.0013

132 -00003

-.0075

2620

951 -0050

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MACH (1) = 3.496 BETA (6) = 2.160 PTO = 2309.222 PO = 30.111 R/PY = 1.729 Q = 259.778
 (UP2106)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.8990	.4270	.5340	.6730	.7800	.8670
.090	.1779	.2653					.3727
.290	-.0045					.0008	
.362	-.0203						
.400							
.419							
.590	-.0653						
.600							
.697	-.0807						.0122
.700							
.723							
.730							
.806	-.0788						
.832	-.0646						
.890							
.900							
.951	-.0695						
.966	-.0197						

MACH (1) = 3.496 BETA (7) = 4.350 PTO = 2309.222 PO = 30.111 R/PY = 1.729 Q = 259.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.8990	.4270	.5340	.6730	.7800	.8670
.090	.2512	.3258					.4302
.290	.0110					.0157	
.362	-.0129						
.400							
.419							
.590	-.0596						
.600							
.697	-.0554						
.700							
.723							
.730							
.806	-.0787						
.832	-.0379						
.890							
.900							
.951	-.0666						
.966	-.0031						



DATE 08 DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

ALCS 07-710 1A12C 21 71 53 UPPER WING PRESSURE (UBZ110) (12 APR 74)

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
 CTR = 26.860 SHPR = .768
 GIMBAL = 1.000 RUDDER = .000

DEPENDENT DATA

9007 = 8990.0000 SQ.FT. 3000 = 953.0000 IN.
 1007 = 1328.0000 IN. 4000 = .0000 IN.
 2007 = 1328.0000 IN. 2000 = 400.0000 IN.
 SCALE = .0190 SCALE

MACH (1) = 3.002 BETA (1) = -7.290 PTO = 2297.222 PO = 62.000 R/PY = 2.281 Q = 393.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.080			-.0297	.0764		.1579
.290			-.0877		-.0662	
.382	-.0917					
.400				-.0900		
.419		-.0789				
.590			-.1000	-.1206		
.600						-.0677
.697	-.0737					
.700				-.1213		
.725			-.0665		-.1073	
.750						
.808		-.0823				
.832	-.0836			-.1141		
.850			-.0759		-.1070	
.900		-.0448				
.951						
.966	-.0297					

MACH (1) = 3.002 BETA (2) = -6.240 PTO = 2297.222 PO = 62.000 R/PY = 2.281 Q = 393.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.080			.0146	.1026		.1303
.290			-.0657		-.0603	
.382	-.0447					
.400				-.0685		
.419		-.0773				
.590			-.1095	-.1193		
.600						-.0676
.697	-.0721					
.700				-.1165		
.725			-.0932			
.750					-.1031	
.808		-.0823				
.832	-.0643					



DATE OF RELEASE: 11/20/2010 09:55 AM
TABULATED SOURCE DATA - 11/20/2010 09:55 AM

(0126)

A-E, 6"-710 1A120 29 : 53 SUPER WING PRESSURE

MACH (1) = 3.002 BETA (2) = -6.245

SECTION 1: THE OTHER KING

.7	.2990	.4870	.675	.7900
.				.8475

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.ASD **- .11:4**

DATE	DESCRIPTION	AMOUNT
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964 - 0210

$$\begin{aligned} \text{WACC} (1) &= 3.032 & \text{BETA} (3) &= -4.150 & \text{P/C} &= 2297,222 & \text{PO} &= 62,000 & \text{R/Y} &= 2.281 & Q &= 393,111 \end{aligned}$$

SECTION (110) RITER WAS
DEPENDENT VARIABLE OF

Year	1990	1995	2000	2005	2010
Y/A	2990	4270	5340	6750	7800
					8870

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.050	.0219	.1516	.2256
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	4500'	4000'	3500'
1968	17	17	17
1969	17	17	17
1970	17	17	17
1971	17	17	17
1972	17	17	17
1973	17	17	17
1974	17	17	17
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2078	17	17	17
2079	17	17	17
2080			

-.400 -.0015

.419 -.0701

0.330 -0.1069 -0.1173
0.000 -0.0000 -0.0000

.697 -.0703

.700 -.1209

0.373
-0.097
-0.190
-0.190

.POS **-.0709**

.132 -.0917

Year	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

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- .0207

Model	Log Likelihood	AIC	BIC	Bayesian Information Criterion
Model 1	-102.34	206.68	210.12	208.95
Model 2	-101.87	205.74	209.18	207.91
Model 3	-101.42	204.84	208.28	207.01
Model 4	-100.95	203.90	207.34	206.07
Model 5	-100.48	202.96	206.40	205.13
Model 6	-100.01	202.02	205.46	204.19
Model 7	-99.54	201.08	204.52	203.25
Model 8	-99.07	200.14	203.58	202.31
Model 9	-98.60	199.20	202.64	201.37
Model 10	-98.13	198.26	201.70	200.43
Model 11	-97.66	197.32	200.76	199.49
Model 12	-97.19	196.38	199.82	198.55
Model 13	-96.72	195.44	198.88	197.61
Model 14	-96.25	194.50	197.94	196.67
Model 15	-95.78	193.56	197.00	195.73
Model 16	-95.31	192.62	196.06	194.79
Model 17	-94.84	191.68	195.12	193.85
Model 18	-94.37	190.74	194.18	192.91
Model 19	-93.90	189.80	193.24	191.97
Model 20	-93.43	188.86	192.30	191.03
Model 21	-92.96	187.92	191.36	190.09
Model 22	-92.49	186.98	190.42	189.15
Model 23	-92.02	186.04	189.48	188.21
Model 24	-91.55	185.10	188.54	187.27
Model 25	-91.08	184.16	187.60	186.33
Model 26	-90.61	183.22	186.66	185.39
Model 27	-90.14	182.28	185.72	184.45
Model 28	-89.67	181.34	184.78	183.51
Model 29	-89.20	180.40	183.84	182.57
Model 30	-88.73	179.46	182.90	181.63
Model 31	-88.26	178.52	181.96	180.69
Model 32	-87.79	177.58	181.02	179.75
Model 33	-87.32	176.64	180.08	178.81
Model 34	-86.85	175.70	179.14	177.87
Model 35	-86.38	174.76	178.20	176.93
Model 36	-85.91	173.82	177.26	175.99
Model 37	-85.44	172.88	176.32	175.05
Model 38	-84.97	171.94	175.38	174.11
Model 39	-84.50	171.00	174.44	173.17
Model 40	-84.03	170.06	173.50	172.23
Model 41	-83.56	169.12	172.56	171.29
Model 42	-83.09	168.18	171.62	170.35
Model 43	-82.62	167.24	170.68	169.41
Model 44	-82.15	166.30	169.74	168.47
Model 45	-81.68	165.36	168.80	167.53
Model 46	-81.21	164.42	167.86	166.59
Model 47	-80.74	163.48	166.92	165.65
Model 48	-80.27	162.54	165.98	164.71
Model 49	-79.80	161.60	165.04	163.77
Model 50	-79.33	160.66	164.10	162.83
Model 51	-78.86	159.72	163.16	161.89
Model 52	-78.39	158.78	162.22	160.95
Model 53	-77.92	157.84	161.28	160.01
Model 54	-77.45	156.90	160.34	159.07
Model 55	-76.98	155.96	159.40	158.13
Model 56	-76.51	155.02	158.46	157.19
Model 57	-76.04	154.08	157.52	156.25
Model 58	-75.57	153.14	156.58	155.31
Model 59	-75.10	152.20	155.64	154.37
Model 60	-74.63	151.26	154.70	153.43
Model 61	-74.16	150.32	153.76	152.49
Model 62	-73.69	149.38	152.82	151.55
Model 63	-73.22	148.44	151.88	150.61

INSTITUTIONALIZATION OF THE
DEPENDENT VARIABLE OF CP

0.000 42.47 0.3345 0.5719 0.0001 0.0001

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.061	.0620	.1440	.2503
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0.000	-0.0004	-0.0004
0.001	-0.0004	-0.0004
0.002	-0.0004	-0.0004
0.003	-0.0004	-0.0004
0.004	-0.0004	-0.0004
0.005	-0.0004	-0.0004
0.006	-0.0004	-0.0004
0.007	-0.0004	-0.0004
0.008	-0.0004	-0.0004
0.009	-0.0004	-0.0004
0.010	-0.0004	-0.0004
0.011	-0.0004	-0.0004
0.012	-0.0004	-0.0004
0.013	-0.0004	-0.0004
0.014	-0.0004	-0.0004
0.015	-0.0004	-0.0004
0.016	-0.0004	-0.0004
0.017	-0.0004	-0.0004
0.018	-0.0004	-0.0004
0.019	-0.0004	-0.0004
0.020	-0.0004	-0.0004
0.021	-0.0004	-0.0004
0.022	-0.0004	-0.0004
0.023	-0.0004	-0.0004
0.024	-0.0004	-0.0004
0.025	-0.0004	-0.0004
0.026	-0.0004	-0.0004
0.027	-0.0004	-0.0004
0.028	-0.0004	-0.0004
0.029	-0.0004	-0.0004
0.030	-0.0004	-0.0004
0.031	-0.0004	-0.0004
0.032	-0.0004	-0.0004
0.033	-0.0004	-0.0004
0.034	-0.0004	-0.0004
0.035	-0.0004	-0.0004
0.036	-0.0004	-0.0004
0.037	-0.0004	-0.0004
0.038	-0.0004	-0.0004
0.039	-0.0004	-0.0004
0.040	-0.0004	-0.0004
0.041	-0.0004	-0.0004
0.042	-0.0004	-0.0004
0.043	-0.0004	-0.0004
0.044	-0.0004	-0.0004
0.045	-0.0004	-0.0004
0.046	-0.0004	-0.0004
0.047	-0.0004	-0.0004
0.048	-0.0004	-0.0004
0.049	-0.0004	-0.0004
0.050	-0.0004	-0.0004
0.051	-0.0004	-0.0004
0.052	-0.0004	-0.0004
0.053	-0.0004	-0.0004
0.054	-0.0004	-0.0004
0.055	-0.0004	-0.0004
0.056	-0.0004	-0.0004
0.057	-0.0004	-0.0004
0.058	-0.0004	-0.0004
0.059	-0.0004	-0.0004
0.060	-0.0004	-0.0004
0.061	-0.0004	-0.0004
0.062	-0.0004	-0.0004
0.063	-0.0004	-0.0004
0.064	-0.0004	-0.0004
0.065	-0.0004	-0.0004
0.066	-0.0004	-0.0004
0.067	-0.0004	-0.0004
0.068	-0.0004	-0.0004
0.069	-0.0004	-0.0004
0.070	-0.0004	-0.0004
0.071	-0.0004	-0.0004
0.072	-0.0004	-0.0004
0.073	-0.0004	-0.0004
0.074	-0.0004	-0.0004
0.075	-0.0004	-0.0004
0.076	-0.0004	-0.0004
0.077	-0.0004	-0.0004
0.078	-0.0004	-0.0004
0.079	-0.0004	-0.0004
0.080	-0.0004	-0.0004
0.081	-0.0004	-0.0004
0.082	-0.0004	-0.0004
0.083	-0.0004	-0.0004
0.084	-0.0004	-0.0004
0.085	-0.0004	-0.0004
0.086	-0.0004	-0.0004
0.087	-0.0004	-0.0004
0.088	-0.0004	-0.0004
0.089	-0.0004	-0.0004
0.090	-0.0004	-0.0004
0.091	-0.0004	-0.0004
0.092	-0.0004	-0.0004
0.093	-0.0004	-0.0004
0.094	-0.0004	-0.0004
0.095	-0.0004	-0.0004
0.096	-0.0004	-0.0004
0.097	-0.0	

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.419 -.0624

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DATE 09 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 699

AMES 87-710 1A12C 04 TI S3 UPPER WING PRESSURE (LBZ110)

MACH (1) = 3.002 BETA (4) = -2.060

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2900 .4270 .5340 .6750 .7800 .8870

X/C

.700					
.725					
.750					
.806					
.832					
.850					
.900					
.951					
.966					

MACH (1) = 3.002 BETA (5) = .030 PTO = 2297.222 PO = 62.000 R/FT = 2.261 Q = 393.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2900 .4270 .5340 .6750 .7800 .8870

X/C

.090					
.250					
.362					
.400					
.419					
.550					
.600					
.697					
.700					
.725					
.750					
.806					
.832					
.850					
.900					
.951					
.966					

DATE 01 DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

(UBZ110)

AVES 87-710 1A120 CL T1 S3 UPPER WING PRESSURE

MACH (1) = 3.002 BETA (6) = 2.120 PTO = 2297.222 PO = 62.000 R/PT = 2.281 Q = 393.111

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B	X/C	.2990	.4270	.5340	.6730	.7900	.8870
.090	.1832	.278	.3631				
.290	-.0390	-.0010					
.362	-.0325						
.400		-.0607					
.419							
.490		-.0807	-.1003	-.1013			
.690							-.0281
.697	-.0748						
.700			-.1175				
.725		-.0395					
.750				-.0923			
.806	-.0504						
.832	-.0599			-.1150			
.850		-.0955			-.0816		
.900							
.951	-.0817						
.966	-.0027						

MACH (1) = 3.002 BETA (7) = 4.220 PTO = 2297.222 PO = 62.000 R/PT = 2.281 Q = 393.111

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B	X/C	.2990	.4270	.5340	.6730	.7900	.8870
.090	.2615	.3300	.4139				
.290	-.0224	.0169					
.362	-.0173						
.400		-.0466					
.419							
.490		-.0762	-.0979	-.0687			
.600							-.0212
.697	-.0861						
.700			-.1103				
.725		-.0932					
.750				-.0862			
.806	-.0879						
.832	-.0537			-.1113			
.850							-.0740
.900		-.0966					
.951	-.0591						
.966	.0194						

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-710 1A12C 01 T1 SS UPPER WING PRESSURE (UBZ110)

MACH (1) = 3.002 BETA (8) = 6.300 PTO = 2297.222 PO = 62.000 R/PT = 2.261 Q = 393.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.3119	.3837	.4702	
.250			-.0091		.0378	
.362	-.0025					
.400				-.0385		
.419		-.0723				
.550			-.0944	-.0804		
.600					-.0122	
.697	-.0575					
.700			-.1021			
.725			-.0945		-.0779	
.750						
.806		-.0839				
.832	-.0434					
.850			-.1071			
.900		-.0894			-.0631	
.951		-.0467				
.966	.0408					

MACH (1) = 3.002 BETA (9) = 7.350 PTO = 2297.222 PO = 62.000 R/PT = 2.261 Q = 393.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050			.3329	.4052	.4974	
.250			-.0039		.0493	
.362	.0082					
.400				-.0313		
.419		-.0690				
.550			-.0928	-.0760		
.600					-.0048	
.697	-.0503					
.700			-.0594			
.725			-.0947		-.0735	
.750						
.806		-.0831				
.832	-.0373					
.850			-.1034			
.900		-.0843			-.0541	
.951		-.0421				
.966	.0549					



(UBZ111) (12 APR 74)

AVES 87-710 (A12C 01 M 55 UPPER WING PRESSURE)

REFERENCE DATA

PARAMETRIC DATA

SRP = 2350.0000 SQ.FT. XMRP = 935.0000 IN.
 LREF = 1328.0000 IN. YMRP = .0000 IN.
 BRP = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

ALPHA = .000 POWER = 1.000
 CTR = 25.800 SRMPR = .828
 GIVEAL = 1.000 RUDDER = .000

MACH (1) = 3.499 BETA (1) = -7.640 PTO = 2314.667 PO = 30.222 R/PT = 1.777 Q = 280.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8670
X/C						
.090			-.0397	.0402		.1353
.250			-.0346		-.0177	
.362	-.0805					
.400				-.0117		
.419						
.550		-.0170				
.600			-.0166	-.0144		.0228
.697	-.0213					
.700				-.0122		
.725			-.0101			
.790					-.0066	
.806		-.0154				
.832	-.0063			-.0144		.0033
.850						
.900			-.0112			
.931		-.0024				
.966	.0106					

MACH (1) = 3.499 BETA (2) = -6.970 PTO = 2314.667 PO = 30.222 R/PT = 1.777 Q = 280.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8670
X/C						
.090			-.0320	.0877		.1330
.250			-.0360		-.0420	
.362	-.0271					
.400				-.0157		
.419		-.0216				
.550			-.0238	-.0190		.0076
.600						
.697	-.0271					
.700			-.0130	-.0174		
.725						
.750					-.0165	
.806		-.0222				
.832	-.0134					

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(UB2111)

ANES 87.710 1A12C CL TL SS UPPER WING PRESSURE

MACH (1) = 3.499 BETA (2) = -6.370

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.050
.900
.951
.966
-0183
-0174
-0091
0019
-0142

MACH (1) = 3.499 BETA (3) = -4.390 PTO = 2314.667 PO = 30.222 R/FT = 1.777 Q = 260.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.050
.250
.362
.400
.419
.550
.600
.697
.700
.725
.750
.806
.832
.850
.900
.951
.966
.0077
.0577
-0491
-0459
-0610
-0633
-0662
-0673
-0617
-0731
-0694
-0760
-0441
-0272
-0705

MACH (1) = 3.499 BETA (4) = -2.200 PTO = 2314.667 PO = 30.222 R/FT = 1.777 Q = 260.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
.050
.250
.362
.400
.419
.550
.600
.697
.0793
.0344
-0289
-0611
-0779
-0760
-0047
.2732
-0405
-0383

(LBZ111)

AFC'S 87-710 1A12C ON 1 93 UPPER WING PRESSURE

MACH (1) = 3.499 BETA (4) = -2.270

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.700					
.725					
.750					
.806					
.832					
.850					
.900					
.951					
.966					

MACH (1) = 3.499 BETA (5) = -.020 PTO = 2314.867 PO = 30.822 R/FT = 1.777 Q = 200.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090					
.250					
.362					
.400					
.419					
.550					
.600					
.697					
.700					
.725					
.750					
.806					
.832					
.850					
.900					
.951					
.966					



DATE 25 DE 74 TABULATED SOURCE DATA - (AIRC WING PRESSURES)

AVES 07-710 TA12C 01 T1 S3 UPPER WING PRESSURE (082111)

WACH (1) = 3.499 BETA (6) = 2.170 PTO = 2314.067 PO = 30.222 R/PT = 1.777 Q = 260.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C					
.090	.1841	.2773	.3784		
.290	-.0011		.0037		
.362	-.0182				
.400		-.0126			
.419					
.550	-.0599				
.600		-.0675	-.0665		.0167
.697	-.0561				
.700			-.0682		
.725		-.0584			
.750				-.0644	
.806	-.0763				
.832	-.0593		-.0656		-.0552
.850		-.0704			
.900		-.0708			
.951					
.966	-.0192				

WACH (1) = 3.499 BETA (7) = 4.350 PTO = 2314.067 PO = 30.222 R/PT = 1.777 Q = 260.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C					
.090	.2587	.3565	.4385		
.290	.0191		.0225		
.362	-.0086				
.400		-.0030			
.419					
.550	-.0534				
.600		-.0633	-.0595		.0295
.697	.0524				
.700			-.0792		
.725		-.0565		-.0531	
.750					
.806	-.0741				
.832	-.0545				
.850		-.0613			-.0426
.900		-.0699			
.951		-.0667			
.966	.0081				

DATE 03 JUL 71 TABULATED SOURCE DATA - (1) 1/2 IN. LONG PRESSURES

(UBZ111)

AVES 87-710 (A12C 01) 1/2 32 SUPER WING PRESSURE

MACH (1) = 3.499 BETA (9) = 6.340 PTO = 2314.667 PO = 30.222 R/PT = 1.777 Q = 280.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7900	.8870
X/C						
.090			.3208	.3727		.5091
.290			.0326		.0537	
.362	.0060					
.400				.0047		
.419		-.0452				
.590			-.0572	-.0497		.0445
.600						
.697	-.0414					
.700				-.0726		
.729			-.0595		-.0410	
.750						
.808		-.0876				
.832	-.0431			-.0759		-.0351
.850			-.0639			
.900						
.951		-.0821				
.966	.0223					

MACH (1) = 3.499 BETA (9) = 7.650 PTO = 2314.667 PO = 30.222 R/PT = 1.777 Q = 280.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7900	.8870
X/C						
.090			.3497	.4193		.5500
.290			.0405		.0656	
.362	.0129					
.400				.0134		
.419		-.0429				
.590			-.0543	-.0393		.0521
.600						
.697	-.0360					
.700				-.0656		
.729			-.0544		-.0362	
.750						
.808		-.0824				
.832	-.0391			-.0734		-.0291
.850						
.900			-.0593			
.951		-.0597				
.966	.0316					



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A1EC WING PRESSURES

(082113) (12 APR 74)

AMES 87-710 1A1EC OF T1 SS UPPER WING PRESSURE

REFERENCE DATA

SPR = 2660.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1326.0000 IN. YREF = .0000 IN.
 BREF = 1326.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
 CTR = 25.860 SWPR = .826
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.499 BETA (1) = -7.660 PTO = 2317.667 PO = 30.222 R/PT = 1.766 Q = 260.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8670

X/C
 .090 -.0409 .0362 .1331
 .290 -.0329 -.0167
 .362 -.0307
 .400 -.0134
 .419 -.0149
 .590 -.0182 -.0156
 .600 .0807
 .697 -.0231
 .700 -.0140
 .725 -.0113
 .750 -.0075
 .806 -.0126
 .832 -.0108
 .850 -.0134
 .900 -.0116
 .931 .0003
 .966 .0084
 .0011

MACH (1) = 3.499 BETA (2) = -6.570 PTO = 2317.667 PO = 30.222 R/PT = 1.766 Q = 260.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8670

X/C
 .090 -.0314 .0631 .1334
 .290 -.0352 -.0406
 .362 -.0260
 .400 -.0145
 .419 -.0167
 .590 -.0243 -.0176
 .600 .0105
 .697 -.0253
 .700 -.0151
 .725 -.0161
 .750 -.0151
 .806 -.0193
 .832 -.0136
 .0151



DATE 05 OCT 74 TABULATED SOURCE DATA - (ALL SOURCE PRESSURES)

AMES RESEARCH 1A12C Q1 11 S3 UPPER WING PRESSURE

1131

MACH (1) = 3.499 BETA (2) = -6.970

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7900 .8870

X/C
.890
.900
.931
.966
X/C
.890
.900
.931
.966
X/C
.890
.900
.931
.966

MACH (1) = 3.499 BETA (3) = -4.390 PTO = 2317.667 PO = 30.222 R/PT = 1.766 Q = 290.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7900 .8870

X/C
.090
.290
.362
.400
.419
.550
.600
.697
.700
.725
.750
.806
.832
.890
.900
.951
.966
X/C
.090
.290
.362
.400
.419
.550
.600
.697
.700
.725
.750
.806
.832
.890
.900
.951
.966
X/C
.090
.290
.362
.400
.419
.550
.600
.697
.700
.725
.750
.806
.832
.890
.900
.951
.966

MACH (1) = 3.499 BETA (4) = -2.800 PTO = 2317.667 PO = 30.222 R/PT = 1.766 Q = 290.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7900 .8870

X/C
.090
.290
.362
.400
.419
.550
.600
.697
X/C
.090
.290
.362
.400
.419
.550
.600
.697
X/C
.090
.290
.362
.400
.419
.550
.600
.697



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES)

(UBZ113)

AMES 87-710 1A12C OL T1 S3 UPPER WING PRESSURE

MACH (1) = 3.499 BETA (4) = -2.200

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8670

X/C

.700						
.723						
.750						
.808						
.832						
.850						
.900						
.951						
.966						

MACH (1) = 3.499 BETA (5) = -.010 PTO = 2317.067 PO = 30.822 R/PT = 1.766 J = 260.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8670

X/C

.090						
.230						
.362						
.400						
.419						
.590						
.600						
.697						
.700						
.723						
.750						
.808						
.832						
.850						
.900						
.951						
.966						

DATE 28 DEC 74

TABULATED SOURCE DATA (AIRCRAFT PRESSURES)

PAGE 710

AIRCRAFT PRESSURE

(0.211)

MACH = 3.499 BETA (0) = 2.170 PTO = 2317.667 PO = 30.222 R/PY = 8 0 = 280.770

SECTION 11 ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7600 .8570

X/C

.090	.1809	.2790	.3743
.290	-.0740	.0004	
.342	-.0202		
.400		-.0155	
.419	-.0803		
.590		-.0672	
.600			.0143
.697	-.0803		
.700		-.0457	
.723	-.0644		
.790		-.0867	
.808	-.0752		
.832	-.0832		
.890		-.0679	
.900	-.0732		-.0570
.951	-.0714		
.966	-.0153		

MACH (1) = 3.499 BETA (1) = 4.390 PTO = 2317.667 PO = 30.222 R/PY = 1.706 0 = 280.770

SECTION 11 ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7600 .8570

X/C

.090	.2567	.3331	.4340
.290	.0140	.0177	
.342	-.0072		
.400		-.0083	
.419	-.0673		
.590		-.0817	
.600			.0257
.697	-.0824		
.700		-.0640	
.723	-.0617		-.0590
.790		-.0760	
.808	-.0751		
.832		-.0657	
.890		-.0699	-.0472
.900	-.0662		
.951			
.966	-.0012		



DATE 08 DEC 74 TABULATED SOURCE DATA - (A112C WING PRESSURES)

AVES 87-710 (A112C ON TI SS UPPER WING PRESSURE (UB2113))

WACH (1) = 3.499 BETA (8) = 6.530 PTO = 2317.667 PO = 30.222 R/PT = 1.766 0 = 260.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.5340	.6750	.7800	.8870
X/C						
.090			.3155	.3709		.5082
.290			.0289		.0472	
.362	.0008					
.400				.0027		
.419		-.0483				
.590			-.0812	-.0516		
.600					.0399	
.697	-.0490					
.700				-.0735		
.725			-.0597		-.0478	
.750						
.808		-.0899				
.832	-.0471			-.0603		
.890			-.0886		-.0362	
.900						
.951		-.0872				
.966	.0166					

WACH (1) = 3.499 BETA (9) = 7.630 PTO = 2317.667 PO = 30.222 R/PT = 1.766 0 = 290.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.5340	.6750	.7800	.8870
X/C						
.090			.3489	.4128		.5443
.290			.0365		.0606	
.362	.0115					
.400				.0097		
.419		-.0442				
.590			-.0576	-.0437		
.600					.0452	
.697	-.0409					
.700				-.0691		
.725			-.0583		-.0415	
.750						
.808		-.0863				
.832	-.0431					
.890			-.0637	-.0767		-.0366
.900						
.951		-.0808				
.966	.0310					

AWES 87-710 1A1EC ON T1 S2 UPPER WING PRESSURE (UB7115) (12 APR 74)

REFERENCE DATA

0107 = 2000.0000 SQ.FT. 3000 = 993.0000 IN.
 1007 = 1328.0000 IN. 4000 = .0000 IN.
 0107 = 1328.0000 IN. 2000 = 400.0000 IN.
 SCALE = .0100 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = .000
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.002 BETA (1) = -7.290 PTO = 2298.869 PO = 62.000 R/PY = 2.292 Q = 393.000

SECTION (1) 1108BITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6750	.7600	.8870
K/C						
.080			-.0004	.0975		.1319
.290			-.0819		-.0811	
.342	-.0468					
.400				-.0824		
.419						
.590		-.0878				
.600			-.0870	-.1112		
.600						-.0830
.697	-.0868					
.700				-.1191		
.725			-.0887			-.1106
.790						
.808		-.0758				
.832	-.0874					
.890			-.1151			
.900		-.0770				-.1095
.951		-.0963				
.966	-.0848					

MACH (1) = 3.002 BETA (2) = -6.240 PTO = 2298.869 PO = 62.000 R/PY = 2.292 Q = 393.000

SECTION (1) 1108BITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6750	.7600	.8870
K/C						
.080			-.0022	.1106		.1859
.290			-.0812		-.0575	
.342	-.0478					
.400				-.0802		
.419						
.590		-.0869				
.600			-.0982	-.1137		
.600						-.0351
.697	-.0866					
.700				-.1203		
.725			-.0868			-.1097
.790						
.808		-.0707				
.832	-.0841					

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 97-710 1A12C 01 T1 S2 UPPER WING PRESSURE (0.8715)

MACH (1) = 3.002 BETA (2) = -6.240

SECTION (1) 1/8 BITTER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
.890
.900
.951
.966
-0.0220
-0.0366
-0.0737
-0.1177
-0.1019

MACH (1) = 3.002 BETA (3) = -4.150 PTO = 2296.889 PC = 62.000 R/PT = 2.292 Q = 393.000

SECTION (1) 1/8 BITTER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
.050
.250
.362
.400
.419
.550
.600
.697
.700
.725
.750
.806
.832
.850
.900
.951
.966
-0.0170
-0.0445
-0.0758
-0.0986
-0.1224
-0.1447
-0.1173
-0.0885
-0.0426
-0.1012
-0.0509

MACH (1) = 3.002 BETA (4) = -2.080 PTO = 2296.889 PC = 62.000 R/PT = 2.292 Q = 393.000

SECTION (1) 1/8 BITTER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
.090
.250
.362
.400
.419
.550
.600
.697
-0.0725
-0.0487
-0.0772
-0.1028
-0.1050
-0.0421
-0.0322
-0.0676



DATE 15 DEC 74 TABULATED SOURCE DATA - (A12C/M/A PRESSURES)

AMES 87-710 A12C/M/A 1 52 UPPER WING PRESSURE

MACH (1) = 3.002 BETA (4) = -2.060

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.700						
.725						
.750						
.806						
.832						
.850						
.900						
.951						
.966						

MACH (1) = 3.002 BETA (5) = .030 PTO = 2298.689 PO = 62.000 R/FT = 2.252 Q = 393.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.060						
.250						
.362						
.400						
.419						
.550						
.900						
.997						
.700						
.725						
.750						
.806						
.832						
.850						
.900						
.951						
.966						



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AVES 87-710 1A12C OI T1 S2 UPPER WING PRESSURE (UB7115)

MACH (1) = 3.002 BETA (6) = 2.130 PTO = 2296.889 PO = 62.000 R/FT = 2.292 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C					
.090	.2087	.2730	.3878		
.250	-.0325	.0030			
.362	-.0264				
.400		-.0507			
.419	-.0797				
.550		-.0996	-.0862		
.600				-.0232	
.697	-.0711				
.700					
.725		-.1000	-.1094		
.730				-.0881	
.806	-.0909				
.832	-.0845		-.1069		
.890		-.0953		-.0799	
.900					
.951	-.0632				
.966	.0037				

MACH (1) = 3.002 BETA (7) = 4.210 PTO = 2296.889 PO = 62.000 R/FT = 2.292 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C					
.090	.2975	.3286	.4123		
.250	-.0159	.0204			
.362	-.0090				
.400		-.0398			
.419	-.0732				
.550		-.0996	-.0809		
.600				-.0161	
.697	-.0613				
.700		-.1014			
.725		-.0990		-.0813	
.750					
.806	-.0644				
.832	-.0494		-.1029		
.890		-.0906		-.0677	
.900					
.951	-.0530				
.966	.0267				



TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.002 BETA (8) = 3.300 1A12C .1 T1 S2 UPPER WING PRESSURE PO = 2296.889 R/FT = 2.292 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.5340	.8750	.7800	.6870
X/C						
.090			.3103	.3854		.4737
.250			-.0019		.0459	
.362	.0086					
.400				-.0516		
.419						
.550		-.0671				
.600			-.0877	-.0744		-.0061
.697	-.0513					
.700				-.0979		
.725			-.0928			-.0750
.750						
.806	.0000					
.832	-.0422					
.850			-.1033			
.900			-.0652			-.0583
.951		-.0401				
.966	.0466					

MACH (1) = 3.002 BETA (9) = 7.350 PTO = 2296.889 PO = 2296.889 R/FT = 2.292 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.8750	.7800	.6870
X/C						
.090			.3362	.4119		.5038
.250			.0072		.0580	
.362	.0162					
.400				-.0250		
.419		-.0624				
.550			-.0633	-.0712		
.600						-.0003
.697	-.0440					
.700				-.0942		
.725			-.0946			
.750					-.0661	
.806		-.0756				
.832	-.0326					
.850				-.0993		
.900			-.0795			-.0497
.951		-.0332				
.966	.0636					



DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURES)

AMES 87-710 1A12C O1 T1 S2 UPPER WING PRESSURE

(UBZ116) (12 APR 74)

REFERENCE DATA

WREF = 8000.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
 CRR = 28.860 SRRPR = .768
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.002 BETA (1) = -7.890 PTO = 2292.869 PO = 62.000 R/F T = 2.266 Q = 392.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2590	.4270	.5340	.6750	.7800	.8870
X/C						
.050			-.0275	.0806		.1269
.250			-.0830		-.0822	
.362	-.0473			-.0865		
.400						
.419		-.0693				
.550		-.0976	-.1112			
.600						-.0651
.697	-.0711			-.1036		
.700			-.0666		-.0928	
.725						
.750						
.806		-.0743				
.832	-.0574			-.0961		
.850			-.0854		-.0639	
.900						
.951		-.0350				
.966	-.0196					

MACH (1) = 3.002 BETA (2) = -6.240 PTO = 2292.869 PO = 62.000 R/F T = 2.266 Q = 392.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2590	.4270	.5340	.6750	.7800	.8870
X/C						
.050			-.0153	.1078		.1761
.250			-.0895		-.0597	
.362	-.0473			-.0853		
.400						
.419		-.0697				
.550		-.1014	-.1177			
.600						-.0576
.697	-.0666					
.700			-.1181			
.725			-.0892			
.750						-.1029
.806		-.0726				
.832	-.0545					

DATE 26 DEC 74 TABULATED SOURCE DATA - 1A12C (A12 PRESSURES)

(LBZ116)

AVES 07-710 1A12C Q1 1 S2 UPPER WING PRESSURE

MACH (1) = 3.002 BETA (2) = -0.240

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8877

X/C
.090
.290
.362
.400
.419
.590
.600
.697
.700
.725
.750
.806
.832
.850
.900
.951
.966
-0.0199
-0.0317
-0.0745
-0.1073
-0.0998

MACH (1) = 3.002 BETA (3) = -4.150 PTO = 2292.889 PO = 62.000 R/PT = 2.266 Q = 392.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8877

X/C
.090
.290
.362
.400
.419
.590
.600
.697
.700
.725
.750
.806
.832
.850
.900
.951
.966
-0.0199
-0.0364
-0.0692
-0.1085
-0.0761
-0.0984
-0.1205
-0.1011
-0.0791
-0.1107
-0.1150
-0.0513
-0.0967
-0.0725
-0.1326
-0.2222
-0.0514

MACH (1) = 3.002 BETA (4) = -2.060 PTO = 2292.889 PO = 62.000 R/PT = 2.266 Q = 392.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8877

X/C
.090
.290
.362
.400
.419
.590
.600
.697
-0.0199
-0.0364
-0.0692
-0.1085
-0.0761
-0.0984
-0.1205
-0.1011
-0.0791
-0.1107
-0.1150
-0.0513
-0.0967
-0.0725
-0.1326
-0.2222
-0.0514



DATE 03 DEC 74 TABULATED SOURCE DATA - TAILC AND PRESSURES

WACH (1) = 3.002 BETA (6) = 2.120 PTO = 2292.869 PO = 62.000 R/PT = 2.206 Q = 392.1
 (LBZ115)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6750	.7800	.8870
X/C						
.050		.2127	.2799		.3703	
.250		-.0279		.0045		
.362	-.0284					
.400			-.0489			
.419		-.0792				
.550			-.0951	-.0916		
.600					-.0249	
.697	-.0709					
.700			-.1115			
.725			-.0676		-.0876	
.750						
.806		-.0662				
.832	-.0535			-.1075		
.850		-.0916			-.0801	
.900		-.0826				
.931						
.966	.0066					

WACH (1) = 3.002 BETA (7) = 4.210 PTO = 2292.869 PO = 62.000 R/PT = 2.206 Q = 392.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6750	.7800	.8870
X/C						
.050		.2596	.3323		.4162	
.250		-.0144		.0202		
.362	-.0076					
.400			-.0398			
.419		-.0744				
.550		-.0939	-.0617			
.600					-.0143	
.697	-.0599					
.700			-.1024			
.725		-.0672			-.0632	
.750						
.806		-.0627				
.832	-.0469					
.850			-.1034			
.900		-.0690			-.0892	
.931		-.0541				
.966	.0267					



DATE OF DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

AVES 67-710 1A12C 01 11 52 UPPER WING PRESSURE (10.2116)

MACH (1) = 3.002 BETA (9) = 6.310 PTD = 2292.889 PO = 62.000 R/PT = 2.266 Q = 392.444

SECTION (1) UPPER WING DEPENDENT VARIABLE CP

Y/B	.2590	.4270	.5340	.6750	.7800	.8870
X/C						
.050			.3120	.3871		.4760
.250			-.0006		.0458	
.382	.0083					
.400			-.0300			
.419		-.0688				
.550			-.0469	-.0736		
.600						-.0034
.697	-.0908					
.700			-.0996			
.722			-.0852			
.750					-.0732	
.806		-.0793				
.832	-.0596			-.1029		
.850			-.0619			-.0378
.900		-.0417				
.951						
.966	.0503					

MACH (1) = 3.002 BETA (9) = 7.350 PTD = 2292.889 PO = 62.000 R/PT = 2.266 Q = 392.444

SECTION (1) UPPER WING DEPENDENT VARIABLE CP

Y/B	.2590	.4270	.5340	.6750	.7800	.8870
X/C						
.050			.3361	.4131		.5082
.250			.0079		.0575	
.382	.0178					
.400			-.0254			
.419		-.0646				
.550			-.0455	-.0672		.0015
.600						
.697	-.0415					
.700			-.0524			
.725			-.0467			
.750					-.0679	
.806		-.0754				
.832	-.0311					
.850			-.0686			
.900			-.0756			-.0500
.951		-.0346				
.966	.0632					

DATE 13 DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

AVES 07-710 1A12C 01 11 92 UPPER WING PRESSURE (082119) (12 APR 74)

PARA-METRIC DATA

REF = 2000.0000 SQ.FT. WARP = 953.0000 IN.
 LREF = 1328.0000 IN. WREF = 1750.0000 IN.
 BREF = 1888.0000 IN. TREF = 400.0000 IN.
 SCALE = .0100 SCALE
 MACH (1) = 3.499 BETA (1) = -.7600 PTO = 2301.556 PO = 30.000 R/PT = 1.756 Q = 299.000
 ALPHA = .030 POWER = .000
 GIBAL = 1.000 FLUTTER = .000

REFERENCE DATA

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6750 .7450 .8870

X/C

.090 -.0049 .0612 .1154
 .290 -.0574 -.0928
 .362 -.0434 -.0564
 .400
 .419 -.0547 -.0667
 .590 -.0615 -.0667 -.0505
 .600
 .697 -.0537 -.0920
 .700
 .725 -.0717 -.0763
 .750
 .806 -.0645
 .832 -.0541 -.0667
 .850
 .900 -.0763 -.0730
 .911 -.0459
 .966 -.0275

MACH (1) = 3.499 BETA (2) = -.6560 PTO = 2301.556 PO = 30.000 R/PT = 1.756 Q = 299.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6750 .7450 .8870

X/C

.090 .0045 .0907 .1474
 .290 -.0579 -.0468
 .362 -.0404
 .400
 .419 -.0565
 .590 -.0625 -.0638
 .600
 .697 -.0537 -.0914
 .700
 .725 -.0734
 .750
 .806 -.0694
 .832 -.0275



DATE 09 DEC 74 TAB LAMINAR SURGE DATA (TAB LAMINAR PRESSURES)

AREA SURGE (A120 C1 M 52 UPPER WING PRESSURE (LB/IN²))

WING (1) 3.489 BETA (1) 5.380

SECTION 1 (1) 100150 WING DEPENDENT VARIABLE CP

CP (1) 100150 WING DEPENDENT VARIABLE CP

CP (1) 100150 WING DEPENDENT VARIABLE CP

WING (1) 3.489 BETA (1) 5.380 RMW = 2501.556 PO = 30.000 R/PY = 1.756 Q = 259.000

SECTION 1 (1) 100150 WING DEPENDENT VARIABLE CP

CP (1) 100150 WING DEPENDENT VARIABLE CP

CP (1) 100150 WING DEPENDENT VARIABLE CP

CP (1) 100150 WING DEPENDENT VARIABLE CP

CP (1) 100150 WING DEPENDENT VARIABLE CP

CP (1) 100150 WING DEPENDENT VARIABLE CP

CP (1) 100150 WING DEPENDENT VARIABLE CP

CP (1) 100150 WING DEPENDENT VARIABLE CP

CP (1) 100150 WING DEPENDENT VARIABLE CP

CP (1) 100150 WING DEPENDENT VARIABLE CP



DATE 5 DEC 74 TABULATED SOURCE DATA - BASIC WING DATA (COEFFS)

AVES 87-710 1A12C 02 75 52 UPPER WING PRESSURE (LB/FT)

MACH (1) = 3.499 BETA (4) = -2.800

SECTION (1) UPPER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
 .700 -.0692
 .725 -.0728
 .750 -.0745
 .775 -.0710
 .800 -.0601
 .825 -.0514
 .850 -.0765
 .875 -.0814
 .900 -.0689
 .925 -.0874
 .950 -.0300

MACH (1) = 3.499 BETA (5) = -.020 PTO = 2501.526 PO = 30.000 R/PT = 1.756 Q = 259.000

SECTION (1) LOWER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
 .090 .1577 .2298 .3264
 .290 -.0125 -.0072
 .362 -.0287 -.0181
 .400 -.0280
 .419 -.0732 -.0868
 .590 .0108
 .600
 .697 -.0579
 .700
 .725 -.0754
 .750
 .775 -.0743
 .808
 .825 -.0879
 .850 -.0881
 .900
 .925 -.0772
 .951 -.0587
 .968 -.0240



DATE OF USE: 10/10/70

(UNIT: 10)

WIND SPEED: 10.000

WIND DIRECTION: 10.000

WIND PRESSURE: 10.000

WIND VELOCITY: 10.000

WIND DIRECTION: 10.000

WIND PRESSURE: 10.000

WIND VELOCITY: 10.000

WIND DIRECTION: 10.000

WIND PRESSURE: 10.000

WIND VELOCITY: 10.000

WIND DIRECTION: 10.000

WIND PRESSURE: 10.000

WIND VELOCITY: 10.000

WIND DIRECTION: 10.000

WIND PRESSURE: 10.000

WIND VELOCITY: 10.000

WIND DIRECTION: 10.000

WIND PRESSURE: 10.000

WIND VELOCITY: 10.000

WIND DIRECTION: 10.000

WIND PRESSURE: 10.000

WIND VELOCITY: 10.000

WIND DIRECTION: 10.000

WIND PRESSURE: 10.000

WIND VELOCITY: 10.000

DATE 15 DEC 74 LABULATED SOURCE DATA - TAILCUTTING PRESSURES

AVES 87-710 1A12C 05 71 52 UPPER WING PRESSURE (B2115)

MACH (1) = 3.486 BETA (9) = 6.740 PTO = 2501.515 PO = 30.000 R/PT = 1.756 Q = 259.00

SECTION (1) ORBITER WING

DEPENDENT VARIABLE Q

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .3202 .3834 .5111
 .290 .0395 .0812
 .382 .0081 .0070
 .400 .0070
 .419 -.0437
 .550 -.0324 -.0471
 .600 .0463
 .697 -.0410
 .700 -.0701
 .725 -.0630
 .750 -.0400
 .806 .0045
 .832 -.0404
 .850 -.0756
 .900 -.0635
 .951 -.0990
 .966 .0284

MACH (1) = 3.486 BETA (9) = 6.740 PTO = 2501.515 PO = 30.000 R/PT = 1.756 Q = 259.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .3492 .4095 .5475
 .290 .0422 .0736
 .382 .0176 .0169
 .419 -.0563
 .550 -.0530 -.0395
 .600 .0922
 .697 -.0311
 .700 -.0635
 .725 -.0841
 .750 -.0362
 .806 -.0834
 .832 -.0322
 .850 -.0995
 .900 -.0592
 .951 -.0865
 .966 .0416

DATE 05 DEC 74

14120 (WING PRESSURE)

(UP-180) (12 APR 74)

14120 (WING PRESSURE)

14120 (WING PRESSURE)

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
CPR = 25.000 SPR = .000
GIBAL = 1.000 RUDDER = .000

REFERENCE DATA

WING = 8680.0000 SQ FT. WING = 600.0000 IN.
LIFT = 1388.0000 LIFT = 10000.0000 IN.
MOM = 1388.0000 IN. MOM = 10000.0000 IN.
SCALE = .0190 SCALE

MACH (1) = 3.40 BETA (1) = -7.640 PTO = 2306.556 PO = 30.000 R/PT = 1.744 Q = 259.556

SECTION 1 (OBLITER WING) DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .00350 .5489 .1275
.250 .0230 .0007
.362 -.0282 .0033
.400 .0033
.419 -.0025 .0011
.430 .0011
.500 .0087
.597 -.0014
.700 .0039 .0154
.725 .0032
.750 .0094
.806 .0083
.832 .0039
.840 .0083
.900 .0039
.951 .0161
.966 .0270

MACH (1) = 3.499 BETA (2) = -6.570 PTO = 2306.556 PO = 30.000 R/PT = 1.744 Q = 259.556

SECTION 1 (OBLITER WING) DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .00310 .0716 .1533
.250 .0179 -.0191
.362 -.0286 .0005
.400 .0005
.419 -.0032
.430 -.0035 -.0728 .0357
.500 .0035
.597 -.0075 .0036
.700 .0070
.725 .0019
.750 .0017
.806 .0017
.832 .0023

AMES 87-710 (A12C O. T. 52 UPPER WING PRESSURE)

(LB/IN²)

MACH (1) = 3.499 BETA (2) = -6.970

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.850 .0043
 .900 .0070 .0161
 .951 .0143
 .966 .0262

MACH (1) = 3.499 BETA (3) = -4.380 PTO = 2308.556 PO = 30.000 R/PT = 1.744 Q = 259.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .0294 .1326 .2156
 .250 -.0419 -.0279
 .362 -.0336 -.0292
 .400 -.0419 -.0459 .0122
 .419
 .550
 .600
 .697 -.0544
 .700
 .725 -.0266
 .750 -.0339 -.0187
 .808 -.0403
 .832 -.0343
 .850
 .900
 .951 -.0114
 .966 .0005

MACH (1) = 3.499 BETA (4) = -2.800 PTO = 2308.556 PO = 30.000 R/PT = 1.744 Q = 259.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .0734 .1736 .2741
 .250 -.0316 -.0236
 .362 -.0289
 .400 -.0340
 .419
 .550
 .600
 .697 -.0377

-0.0020

DATE OF CALC 74 TABULATED SOURCE DATA - 1A18C (WING PRESSURES)

AVES 571.10 1A18C ON T1 02 UPPER WING PRESSURE (L.E. 7120)

MACH (1) = 1.400 BETA (4) = -2.200

SECTION 1 (100% OF WING) DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.700 -.0812
 .725 -.0552
 .750 -.0633
 .806 -.0615
 .832 -.0577
 .850 -.0812
 .900 .0677
 .951 -.0586
 .965 .0311
 .0217

MACH (1) = 1.499 BETA (5) = -.010 PTO = 2508.556 PO = 30.000 R/PT = 1.744 Q = 259.556

SECTION 1 (100% OF WING) DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .1609 .2340 .3306
 .230 -.0090
 .362 -.0179
 .400 -.0159
 .419 -.0484
 .530 -.0671
 .630 -.0639
 .697 -.0500
 .700 -.0786
 .725 -.0534
 .750 -.0634
 .806 -.0720
 .832 -.0522
 .850 -.0770
 .900 -.0687
 .951 -.0382
 .966 .0131



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.499 BETA (6) = 2.170 PTO = 2306.356 PO = 30.000 R/PT = 1.744 Q = 259.556
 AWS 87-710 1A12C Q1 T1 S2 UPPER WING PRESSURE (LB/IN²)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/A						
.090			.2109	.2871		.3945
.290			.0071		.0169	
.362	-.0104					
.400				-.0051		
.419						
.550		-.0533				
.600			-.0648	-.0576		.0282
.697	-.0476					
.700				-.0782		
.725			-.0901			
.750					-.0545	
.806		-.0720				
.832	-.0511			-.0754		
.890			-.0844			-.0519
.900						
.951		-.0837				
.966	.0044					

MACH (1) = 3.499 BETA (7) = 4.350 PTO = 2306.356 PO = 30.000 R/PT = 1.744 Q = 259.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.2664	.3443		.4473
.290			.0222		.0307	
.362	-.0001					
.400				.0029		
.419		-.0494				
.550			-.0596	-.0517		.0374
.600						
.697	-.0461					
.700				-.0727		
.725			-.0479			-.0511
.750						
.806		-.0668				
.832	-.0494					
.890			-.0747			-.0386
.900			-.0820			
.951		-.0823				
.966	.0065					

DATE 03 DEC 74 TABULATED SOURCE DATA - (AIRC WING PRESSURES)

AVG 87-710 1A120 01 11 S2 UPPER WING PRESSURE (87Z120)

MACH (1) = 3.495 BETA (8) = 6.110 PTO = 2306.556 PO = 50.000 R/PT = 1.744 Q = 259.556

SECTION (1) 3-SEATER WING DEPENDENT VARIABLE CP

X/C .2590 .4270 .5340 .6750 .7800 .8870

X/C	.090	.3236	.3650	.5145
.250	.0411	.0632		
.392	.0055	.0110		
.400				
.419	-.0426			
.550		-.0502	-.0460	
.600			.0488	
.667	-.0390			
.752		-.0594		
.765		-.0444	-.0375	
.770				
.836	-.0615			
.832	-.0396	-.0732		
.850		-.0491	-.0304	
.900		-.0540		
.951				
.966				

MACH (1) = 3.495 BETA (9) = 7.330 PTO = 2306.556 PO = 50.000 R/PT = 1.744 Q = 259.556

SECTION (1) 3-SEATER WING DEPENDENT VARIABLE CP

X/C .2590 .4270 .5340 .6750 .7800 .8870

X/C	.090	.3513	.4128	.5497
.250	.0444	.0754		
.392	.0208	.0185		
.400				
.419	-.0372			
.550		-.0508	-.0367	
.600			.0566	
.667	-.0284			
.752		-.0603		
.765		-.0450	-.0351	
.770				
.836	-.0601			
.832	-.0311	-.0679	-.0271	
.900		-.0542		
.951	-.0558			
.966	.0400			

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

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AWES 87-710 1A12C OF 11 UPPER WING PRESSURE

B71231

(12 APR 74)

REFERENCE DATA

WREF = 2490.0000 SQ.FT. WREF = 953.0000 IN.
 LREF = 1328.0000 IN. WREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 470.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = .000
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.499 BETA (1) = -7.661 PTC = 2501.444 PO = 50.000 R/P/T = 1.772 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 -.0278 .1071 .1660
 .290 -.0461 -.0449
 .382 -.0519
 .400 -.0405
 .419 -.0552
 .550 -.0663 -.0788
 .600 -.0210
 .697 -.0656
 .700 -.0914
 .725 -.0663
 .750 -.0783
 .806 -.0663
 .832 -.0645
 .850 -.0903
 .900 -.0708
 .951 -.0546
 .966 -.0316

MACH (1) = 3.499 BETA (2) = -6.570 PTC = 2501.444 PO = 50.000 R/P/T = 1.772 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 -.0059 .1226 .1697
 .290 -.0393 -.0405
 .382 -.0491
 .400 -.0394
 .419 -.0557
 .550 -.0677 -.0794
 .600 -.0160
 .697 -.0662
 .700 -.0662
 .725 -.0684
 .750 -.0761
 .806 -.0663
 .832 -.0663



DATE 08 DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

(LBZ123)

658 87.710 1A120 01 71 UPPER WING PRESSURE

MACH (1) = 3.499 BETA (2) = 6.570

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .850 -.0403
 .900 -.0707
 .951 -.0568
 .998 -.0321

MACH (1) = 3.499 BETA (3) = 4.350 PTO = 2501.444 PO = 30.000 R/PT = 1.772 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .020 .0291 .1624 .2359
 .280 -.0344 -.0291
 .362 -.0404 -.0315
 .419 -.0524 -.0745
 .585 -.0696 -.0745
 .600 -.0073
 .697 -.0182
 .700 -.0476
 .725 -.0745
 .730 -.0723
 .808 -.0639
 .832 -.0592
 .840 -.0892
 .850 -.0675
 .900 -.0772
 .951 -.0530
 .998 -.0294

MACH (1) = 3.499 BETA (4) = 2.200 PTO = 2501.444 PO = 30.000 R/PT = 1.772 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .050 .1491 .2073 .2996
 .250 -.0130 -.0110
 .362 -.0283
 .400 -.0230
 .419 -.0535
 .450 -.0699 -.0673
 .550 .0080
 .600
 .697 -.0513



DATE US DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURES

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AMES 87-710 1A12C OR T1 UPPER WING PRESSURE

(08Z)

MACH (1) = 3.499 BETA (4) = -2.200

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.700 -.0654
 .725 -.0744
 .750 -.0839
 .806 -.0866
 .832 -.0908
 .850 -.0832
 .900 -.0794
 .951 -.0497
 .966 -.0201
 -.0393

MACH (1) = 3.499 BETA (5) = -.010 ρ/σ = 2501.444 ρ/σ = 30.000 ρ/σ = 1.772 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .1909 .2585 .3315
 .250 .0006 .0054
 .362 -.0191
 .400 -.0149
 .419 -.0425
 .550 -.0672 -.0641
 .600 .0156
 .697 -.0461
 .700 -.0805
 .725 -.0794
 .750 -.0661
 .806 -.0863
 .832 -.0466
 .850 -.0610
 .900 -.0756
 .951 -.0263
 .966 -.0151
 -.0538



DATE 05 DEC 77 TITLE NAME SOURCE DATA - 1A12C WING PRESSURES

WING (1) = 3.455 BETA (1) = 2.172 PTO = 2501.444 PO = 30.000 P/PY = 1.772 Q = 259.000 (LBZ123)

SECTION (1) 100% REF WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7400 .8870

X/C
 .080 .2361 .3136 .3932
 .250 .0122 .0159
 .362 -.0042 -.0038
 .400
 .419 -.0922 -.0564
 .550
 .600 .0272
 .637 -.0404
 .700 -.0761
 .725 -.0790
 .750 -.0647
 .800 -.0699
 .832 -.0475
 .850 -.0763
 .900 -.0722
 .951 -.0601
 .966 .0002

WING (1) = 3.499 BETA (1) = 4.350 PTO = 2501.444 PO = 30.000 P/PY = 1.772 Q = 259.000

SECTION (1) 100% REF WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7400 .8870

X/C
 .090 .2640 .3571 .4555
 .250 .0263 .0371
 .362 .0072 .0048
 .400
 .419 -.0420
 .550 -.0574 -.0493
 .600 .0408
 .637 -.0355
 .700 -.0717
 .725 -.0712
 .750 -.0444
 .800 -.0639
 .832 -.0371
 .850 -.0739
 .900 -.0664
 .951 -.0548
 .966 .0203



MACH (1) = 3.499 BETA (8) = 5.530 1A12C ON T1 UPPER WING PRESSURE (UB 2123)
 WING = 2301.444 PO = 30.000 R/PT = 1.772 Q = 259.000

SECTION 110811TER WING DEPENDENT VARIABLE CP

Y/B .2590 .4270 .5340 .6750 .7800 .8870

X/C

.090	.3297	.4068	.5135
.250	.0374	.0624	
.362	.0237		
.400		.0199	
.419	-.0395		
.550		-.0410	
.600	-.0555		.0518
.697	-.0283		
.700		-.0657	
.725	-.0646		
.750		-.0378	
.808	-.0590		
.832	-.0318		
.850		-.0690	
.900	-.0607		-.0257
.951	-.0513		
.966	.0396		

MACH (1) = 3.499 BETA (8) = 7.630 PTO = 2301.444 PO = 30.000 R/PT = 1.772 Q = 259.000

SECTION 110811TER WING DEPENDENT VARIABLE CP

Y/B .2590 .4270 .5340 .6750 .7800 .8870

X/C

.090	.3575	.4371	.5510
.250	.0434	.0744	
.362	.0324		
.400		.0197	
.419	-.0333		
.550	-.0530	-.0363	
.600			.0567
.697	-.0234		
.700		-.0619	
.725	-.0635		
.750		-.0318	
.808	-.0566		
.832	-.0261		
.850		-.0651	
.900	-.0375		-.0243
.951	-.0508		
.966	.0464		



DATE 08 DEC 74

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CALCULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-110 1A12C 01 71 UPPER WING PRESSURE (UB2124) (12 APR 74)

REFERENCE DATA

$SARF = 2090.0000$ SAFT, $WARP = 953.0000$ IN.
 $1.757 = 1376.0000$ IN., $WAP = .0000$ IN.
 $5.57 = 1320.0000$ IN. $ZAP = 400.0000$ IN.
 $SCALE = .0190$ SCALE

PARAMETRIC DATA

$ALPHA = .000$ POWER = 3.000
 $QPR = 23.860$ GIBBAL = 1.000
 $RUDDER = .000$

$MACH (1) = 3.459$ $BETA (1) = -7.660$ $PTO = 2304.077$ $PO = 30.000$ $R/FT = 1.757$ $Q = 259.308$

SECTION 11 ORBITER WING DEPENDENT VARIABLE CP

Y/C	2990	.4270	.5340	.6750	.7800	.8870
X/C						
.030	.0000	.1011			.1670	
.295		-.0470		-.0449		
.362	-.0313					
.400			-.0477			
.419		-.0368				
.440			-.0703	-.0832		
.500					-.0232	
.697	-.0858					
.700			-.0701	-.0529		
.725					-.0799	
.750						
.806		-.0603				
.832	-.0661					
.850			-.0903			
.870		-.0745			-.0746	
.931		-.0546				
.946	-.0322					

$MACH (1) = 3.459$ $BETA (2) = -6.570$ $PTO = 2304.077$ $PO = 30.000$ $R/FT = 1.757$ $Q = 259.308$

SECTION 11 ORBITER WING DEPENDENT VARIABLE CP

Y/C	2990	.4270	.5340	.6750	.7800	.8870
X/C						
.030			-.0093	.1176		.1892
.290			-.0446		-.0415	
.362	-.0473					
.400				-.0414		
.419		-.0561				
.450			-.0713	-.0793		
.600						-.0180
.697	-.0638					
.700			-.0908			
.725						
.750			-.0716		-.0776	
.806		-.0676				
.832						-.0443

DATE 03 OCT 74 TABULATED SOURCE DATA - (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100)

0.02500

AMES 07-710 (A12C 04 71 UPPER WING PRESSURE

MACH (1) = 3.499 BETA (2) = -6.970

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4870 .5340 .6730 .7800 .8870

X/C

.890 .0997
.900 .0749
.911 .0581
.926 .0320

MACH (1) = 3.499 BETA (3) = -4.360 PTO = 2504.077 PO = 30.000 R/PT = 1.757 Q = 259.308

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4870 .5340 .6730 .7800 .8870

X/C

.090 .0998 .1377 .2353
.290 .0277 .0284
.362 .0391 .0349
.400 .0287 .0740 .0783
.419 .0080 .0099
.490 .0758 .0723
.600 .0683 .0663
.697 .0582 .0501 .0672
.700 .0510

MACH (1) = 3.499 BETA (4) = -2.800 PTO = 2504.077 PO = 30.000 R/PT = 1.757 Q = 259.308

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4870 .5340 .6730 .7800 .8870

X/C

.090 .1122 .2077 .2878
.290 .0208 .0139
.362 .0309 .0267
.400 .0283 .0721 .0727
.419 .0080 .0040
.490 .0531

DATE 09 DEC 74 TIBLATED SOURCE DATA - TIBLATING PRESSURE

(0.2124)

AMES AT 110 TIBL IN 71 UPPER WING PRESSURE

WICH (11) = 3.459 DATA TABLE = 2.200

SECTION 1 (100) WING DEPENDENT VARIABLE CP

110 12000 14200 15400 16600 17800 19000 20200

110 -1.0419
120 -1.0749
130 -1.0643
140 -1.0643
150 -1.0506
160 -1.0403
170 -1.0352
180 -1.0403
190 -1.0403
200 -1.0352

WICH (11) = 3.459 DATA (11) = -1.0300 PWT = 2904.077 PD = 30.000 PWT = 1.151 Q = 259.306

SECTION 1 (100) WING DEPENDENT VARIABLE CP

110 12000 14200 15400 16600 17800 19000 20200

110 -1.0419
120 -1.0749
130 -1.0643
140 -1.0643
150 -1.0506
160 -1.0403
170 -1.0352
180 -1.0403
190 -1.0403
200 -1.0352
110 -1.0419
120 -1.0749
130 -1.0643
140 -1.0643
150 -1.0506
160 -1.0403
170 -1.0352
180 -1.0403
190 -1.0403
200 -1.0352
110 -1.0419
120 -1.0749
130 -1.0643
140 -1.0643
150 -1.0506
160 -1.0403
170 -1.0352
180 -1.0403
190 -1.0403
200 -1.0352

WING (1) = 3.499 BETA (1) = 2.17 CPO = 2504.077 PO = 30.000 R/PY = 1.757 Q = 259.308
 (LB/IN²)

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7400 .8670
 X/C

.090 .2534 .3102 .3553
 .250 .1114 .0233
 .360 -.0057
 .400 -.0001
 .419
 .450
 .600
 .697 -.0455
 .700
 .725
 .750
 .806
 .822 -.0444
 .850
 .900
 .951
 .966 .0003

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7400 .8670
 X/C

.090 .2534 .3102 .3553
 .250 .1114 .0233
 .360 -.0057
 .400 -.0001
 .419
 .450
 .600
 .697 -.0455
 .700
 .725
 .750
 .806
 .822 -.0444
 .850
 .900
 .951
 .966 .0003

WING (1) = 3.499 BETA (1) = 4.390 PTO = 2504.077 PO = 30.000 R/PY = 1.757 Q = 259.308

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7400 .8670
 X/C

.090 .2649 .3624 .4544
 .250 .0261 .0563
 .362 .0090
 .400 .0059
 .419
 .450
 .550
 .600
 .697 -.0366
 .700
 .725
 .750
 .806
 .822 -.0396
 .850
 .900
 .951
 .966 .0181

Y/B .2990 .4270 .5340 .6730 .7400 .8670
 X/C

.090 .2649 .3624 .4544
 .250 .0261 .0563
 .362 .0090
 .400 .0059
 .419
 .450
 .550
 .600
 .697 -.0366
 .700
 .725
 .750
 .806
 .822 -.0396
 .850
 .900
 .951
 .966 .0181

SECTION 1108B LITER WING

[illegible]

259,300

SECTION (1) ORBITER WING	DEPENDENT VARIABLE CP
1	0.000
2	0.000
3	0.000
4	0.000
5	0.000
6	0.000
7	0.000
8	0.000
9	0.000
10	0.000
11	0.000
12	0.000
13	0.000
14	0.000
15	0.000
16	0.000
17	0.000
18	0.000
19	0.000
20	0.000
21	0.000
22	0.000
23	0.000
24	0.000
25	0.000
26	0.000
27	0.000
28	0.000
29	0.000
30	0.000
31	0.000
32	0.000
33	0.000
34	0.000
35	0.000
36	0.000
37	0.000
38	0.000
39	0.000
40	0.000
41	0.000
42	0.000
43	0.000
44	0.000
45	0.000
46	0.000
47	0.000
48	0.000
49	0.000
50	0.000
51	0.000
52	0.000
53	0.000
54	0.000
55	0.000
56	0.000
57	0.000
58	0.000
59	0.000
60	0.000
61	0.000
62	0.000
63	0.000
64	0.000
65	0.000
66	0.000
67	0.000
68	0.000
69	0.000
70	0.000
71	0.000
72	0.000
73	0.000
74	0.000
75	0.000
76	0.000
77	0.000
78	0.000
79	0.000
80	0.000
81	0.000
82	0.000
83	0.000
84	0.000
85	0.000
86	0.000
87	0.000
88	0.000
89	0.000
90	0.000
91	0.000
92	0.000
93	0.000
94	0.000
95	0.000
96	0.000
97	0.000
98	0.000
99	0.000
100	0.000

Yr	X/C	.2990	.4270	.5340	.6750	.7800	.8870
.090							
.250				.3577	.4372		.5508
.362		.0315		.0436		.0750	
.400					.0215		
.419							
.550							
.600			-.0337	-.0485	-.0362		.0574
.697		-.0233			-.0623		
.700							
.725				-.0596			
.750						-.0333	
.806			-.0556				
.832		-.0255					
.850							
.900				-.0180	-.0662		-.0232
.951			-.0496				
.966		.0465					



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C(WING PRESSURES)

AMES 87-110 1A12C 01 11 S1 14-3.5 PLMS UP WING PMS (LBZ129) (10 APR 74)

REFERENCE DATA

SREF = 2490.0000 SQ.FT. XMRP = 933.0000 IN.
 LREF = 1328.0000 IN. YMRP = .0000 IN.
 BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = .000
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.002 BETA (1) = -7.290 PTO = 2298.556 PO = 62.000 R/FT = 2.263 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.2990	.4270	.5340	.6730	.7800	.8870
.090							
.250							
.362							
.400							
.419							
.550							
.600							
.697							
.700							
.725							
.750							
.806							
.832							
.850							
.900							
.931							
.966							

MACH (1) = 3.002 BETA (2) = -6.240 PTO = 2298.556 PO = 62.000 R/FT = 2.263 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.2990	.4270	.5340	.6730	.7800	.8870
.090							
.250							
.362							
.400							
.419							
.550							
.600							
.697							
.700							
.725							
.750							
.806							
.832							
.850							
.900							
.931							
.966							

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 07-710 1A12C ON T1 S1 M3.5 PLMS UP WING PRS (0.02129)

MACH (1) = 3.002 BETA (2) = -0.240

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
.850
.900
.951
.966
-0.0095
-0.0041
-0.0597
-0.0421
-0.0285

MACH (1) = 3.002 BETA (3) = -4.150 PTO = 2298.556 PO = 62.000 R/PT = 2.263 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
.090
.250
.362
.400
.419
.550
.600
.697
.700
.725
.750
.806
.832
.850
.900
.951
.966
.0128
.1538
-0.0791
-0.0504
-0.0774
-0.1068
-0.1152
-0.0480
-0.0701
-0.1184
-0.0693
-0.1051
-0.0924
-0.1116
-0.0768
-0.0290
-0.0146
-0.0969

MACH (1) = 3.002 BETA (4) = -2.060 PTO = 2298.556 PO = 62.000 R/PT = 2.263 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
.050
.250
.362
.400
.419
.550
.600
.697
-0.0712
-0.1491
-0.0690
-0.0484
-0.0716
-0.1093
-0.1073
-0.0433
-0.0737



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-710 1A12C OF T1 S1 W3.5 PLUS UP WING PPS (0.2129)

MACH (1) = 3.002 BETA (4) = -2.080

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B 2990 .4270 .5340 .6730 .7800 .8870

X/C

.700						
.725						
.750						
.806						
.832						
.850						
.900						
.951						
.966						

MACH (1) = 3.002 BETA (5) = .030 PTC = 2298.556 PO = 62.000 R/PT = 2.263 0 = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B 2990 .4270 .5340 .6730 .7800 .8870

X/C

.090						
.250						
.362						
.400						
.419						
.550						
.600						
.697						
.700						
.725						
.750						
.806						
.832						
.850						
.900						
.951						
.966						



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(UB 2129)

AVES 87-710 1A12C ON T1 S1 WES.5 PLMS UP WING PRS

MACH (1) = 3.002 BETA (6) = 2.120 PTO = 2298.556 PO = 62.000 R/PT = 2.263 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .1028 .2793 .3646
 .250 -.0351 .0062
 .362 -.0312
 .400
 .419 -.0776 -.0576
 .550 -.0967 -.0979
 .600 -.0264
 .697 -.0726
 .700
 .725 -.0936 -.1174
 .750 -.0900
 .806 -.0877
 .832 -.0557
 .850 -.1148
 .900 -.0532
 .951 -.0593
 .966 .0027

MACH (1) = 3.002 BETA (7) = 4.220 PTO = 2298.556 PO = 62.000 R/PT = 2.263 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .2633 .3283 .4134
 .250 -.0189 .0282
 .362 -.0163
 .400
 .419 -.0726 -.0410
 .550 -.0935 -.0856
 .600 -.0173
 .697 -.0636
 .700
 .725 -.1089
 .750 -.0874
 .806 -.0817
 .832 -.0823
 .850 -.1055
 .900 -.0685
 .951 -.0524
 .966 .0251



TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

DATE 05 DEC 74
 MACH (1) = 3.002 BETA (2) = 6.317 PTO = 2298.556 PO = 62.000 R/PT = 2.263 Q = 393.04
 AVE'S 87-710 1A12C OF 17 51 WES.5 PLMS UP WING PRS (LB/IN²)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6750	.7800	.8670
X/C						
.090			.3112	.3798		.4663
.250			-.0055		.0455	
.362	-.0001					
.400				-.0341		
.419						
.530		-.0679				
.550			-.0917	-.0781		
.600						-.0072
.697	-.0324					
.700				-.1004		
.725			-.0685		-.0723	
.750						
.806		-.0776				
.832	-.0376					
.850			-.1015			
.900			-.0046		-.0391	
.951		-.0434				
.966	.0485					

MACH (1) = 3.002 BETA (9) = 7.390 PTO = 2298.556 PO = 62.000 R/PT = 2.263 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6750	.7800	.8670
X/C						
.090			.3314	.4032		.5002
.250			-.0001		.0531	
.362	.0096					
.400				-.0266		
.419						
.530		-.0664				
.550			-.0684	-.0720		
.600						-.0026
.697	-.0466					
.700				-.0937		
.725			-.0664		-.0691	
.750						
.806		-.0765				
.832	-.0344					
.850			-.0993			
.900		-.0766			-.0533	
.951		-.0396				
.966	.0390					



DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-71C 1A12C Q1 T1 S1 W3.5 PLMS UP WAG PRS (UB2150) (12 APR 74)

REFERENCE DATA

SRCP = 2990.0000 SQ.FT. WARP = 953.0000 IN.
 LREF = 1328.0000 IN. WARP = .0000 IN.
 BRCP = 1328.0000 IN. WARP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = .000
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.499 BETA (1) = -7.660 PTO = 2297.000 PO = 30.000 R/P/T = 1.752 Q = 256.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 -.0222 .0955 .1430
 .290 -.0436 -.0421
 .362 -.0337
 .400
 .419 -.0212
 .419 -.0326
 .550 -.0375 -.0333
 .600 .0038
 .697 -.0444
 .700
 .725 -.0316
 .750 -.0267
 .806
 .832 -.0331
 .850
 .890 -.0278
 .900
 .951 -.0294
 .964 -.0161
 -.0052 -.0153

MACH (1) = 3.499 BETA (2) = -6.570 PTO = 2297.000 PO = 30.000 R/P/T = 1.752 Q = 256.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 -.0106 .0808 .1349
 .290 -.0437 -.0437
 .362 -.0320
 .400
 .419 -.0321
 .419 -.0437
 .550 -.0465 -.0497
 .600
 .697 -.0561
 .700
 .725 -.0382
 .750 -.0466
 .806 -.0465
 .832 -.0397
 -.0437



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)
 AVE3 87-710 1A12C ON T1 S1 H23.5 PLWS UP WING PRS (LBZ130)

MACH (1) = 3.499 BETA (4) = -2.200
 SECTION (1) ORBITER WING DEPENDENT VARIABLE CP
 Y/B .2960 .4270 .5340 .6730 .7800 .8870
 X/C
 .100 -.0892
 .725 -.0801
 .750 -.0771
 .808 -.0693
 .832 -.0589
 .850 -.0670
 .900 -.0771
 .951 -.0907
 .966 -.0863
 MACH (1) = 3.499 BETA (5) = -.010 PTO = 2297.000 PO = 30.000 R/PT = 1.752 0 = 256.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP
 Y/B .2990 .4270 .5340 .6730 .7800 .8870
 X/C
 .090 .1539 .2206 .3387
 .290 -.0123
 .362 -.0194
 .400 -.0196
 .419 -.0261
 .550 -.0704
 .600 -.0662
 .697 -.0126
 .700 -.0626
 .725 -.0574
 .750 -.0656
 .808 -.0720
 .832 -.0563
 .850 -.0615
 .900 -.0711
 .951 -.0811
 .966 -.0199



AMES 87-710 1A12C IN FL 31 W-3.5 PLMS UP WING PRS (LB/IN²)

MACH (1) = 3.499 BETA (6) = 2.170 PTO = 2297.070 PO = 30.000 R/PT = 1.752 Q = 256.556

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.1927	.2618			.3884
.250	.0756		.0171		
.362	-.0096				
.400		-.0086			
.419	-.0534				
.550		-.0644	-.0580		
.600				.0274	
.697	-.0901				
.700			-.0777		
.725		-.0550		-.0547	
.750					
.806	-.0666				
.832	-.0516				
.850		-.0766			
.900		-.0667		-.0486	
.951	-.0666				
.966	-.0074				

MACH (1) = 3.499 BETA (7) = 4.360 PTO = 2297.070 PO = 30.000 R/PT = 1.752 Q = 256.556

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.2651	.3422			.4460
.250	.0200		.0330		
.362	-.0013				
.400		.0001			
.419	-.0496				
.550		-.0822	-.0547		
.600				.0351	
.697	-.0466				
.700		-.0744			
.725		-.0569		-.0497	
.750					
.806	-.0666				
.832	-.0474				
.850		-.0727			
.900		-.0876		-.0369	
.951	-.0671				
.966	.0069				

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-710 1A12C CM 71 SL W3.5 PLMS UP WAG PPS (UB2130)

MACH (1) = 3.499 BETA (8) = 6.540 PTO = 2297.000 PO = 30.000 R/PY = 1.752 Q = 258.556

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.030	.3278	.3763	.5114
.230	.0360	.0803	
.362	.0102	.0101	
.400			
.419	-.0413		
.530	-.0550	-.0459	.0463
.600			
.697	-.0360		
.700		-.0678	
.725	-.0541		
.750		-.0371	
.808	-.0633		
.832	-.0397	-.0711	
.850		-.0816	-.0301
.900			
.931	-.0611		
.966	.0687		

MACH (1) = 3.499 BETA (9) = 7.630 PTO = 2297.000 PO = 30.000 R/PY = 1.752 Q = 258.556

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.030	.3594	.4169	.5479
.230	.0442	.0756	
.362	.0180	.0166	
.400			
.419	-.0359	-.0346	
.530	-.0512	-.0346	.0559
.600			
.697	-.0326		
.700		-.0607	
.725	-.0525		
.750		-.0311	
.808	-.0573		
.832	-.0331	-.0678	-.0263
.850			
.900		-.0565	
.931	-.0545		
.966	.0392		

DATE 05 DE 74 TABULATED SOURCE DATA - 1A12C (4.0 PRESSURES)

CR: 11 (12 APR 74)

AVES 07-710 1A12C 01 71 51 LOWER WING PRESSURE

REFERENCE DATA

SPOT = 2690.0000 SQ. FT. WARP = 945.0000 IN.
 LREF = 1328.0000 IN. WARP = .0000 IN.
 BREF = 1328.0000 IN. WARP = 400.0000 IN.
 SCALE = .0190 SCALE

MACH (1) = 2.499 BETA (1) = -7.270 PTO = 2315.444 PO = 136.000 R/PY = 4.015 Q = 593.000

PARAMETER DATA

ALPHA = .000 MPSPA = .000
 POWER = .000 G/HEAL = 1.000
 RUDDER = .000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8870

X/C

.090 -.0446 -.0215
 .400 -.0587
 .419 -.0146
 .590 -.0515
 .600 -.0582
 .700 -.0791
 .725 -.1008
 .808 -.1327
 .850 -.1090
 .900 -.1360
 .950 -.0960
 .990 .0000

MACH (1) = 2.499 BETA (2) = -6.240 PTO = 2315.444 PO = 136.000 R/PY = 4.015 Q = 593.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8870

X/C

.090 -.0357 .0266
 .400 -.0579
 .419 -.0263
 .590 -.0503
 .600 -.0512
 .700 -.0769
 .725 -.0931
 .808 -.1413
 .850 -.1190
 .900 -.1094
 .950 .0000

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/IN²)

WING (1) = 2.499 BETA (3) = -4.180 PTD = 2313.444 PO = 136.000 R/PT = 4.015 0 = 593.000
 WING (2) = 2.499 BETA (4) = -2.180 PTD = 2313.444 PO = 136.000 R/PT = 4.015 0 = 593.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.4270	.5340	.6750	.8870
X/C				
.090			.0158	.0323
.400			-.0414	
.419	-.0803			
.590		-.0053		-.0304
.600			-.0498	
.700		-.0491		
.725	-.1704		-.0875	
.850		-.1075	-.1049	
.900			.0000	
.950				

SECTION (2) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.4270	.5340	.6750	.8870
X/C				
.090			.0599	.0871
.400			-.0116	
.419	-.0498			
.590		-.0432		-.0092
.600			-.0788	
.700		-.0311		
.725	-.0875		-.1072	
.850		-.1074	-.0902	
.900			.0000	
.950				

SECTION (3) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.4270	.5340	.6750	.8870
X/C				
.090			.0778	.1087
.400			.0286	
.419	-.0141			
.590		.0393		.0180
.600			-.0532	
.700		.0093		
.725				



DATE 29 DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

(0.57032)

ANG 3 0°-10° (AIRC ON 1° SL LOWER WING PRESSURE

MACH (1) = 2.499 BETA (1) = -0.070

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C .808 -.0811

.890 -.0820

.900 -.0754

.990 .0000

MACH (1) = 2.499 BETA (1) = 1.990 PTO = 2513.444 PO = 136.000 R/PY = 4.015 Q = 993.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C .090 .0978 .1476

.400 .0545

.419 .0836

.590 .1215

.800 .0463

.900 .0219

.925 .0410

.908 -.0481

.690 -.0275

.900 -.0346

.990 .0000

MACH (1) = 2.499 BETA (1) = 4.050 PTO = 2513.444 PO = 136.000 R/PY = 4.015 Q = 993.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C .090 .1548 .1949

.400 .0888

.419 .0947

.590 .1675

.800 .0368

.900 .0808

.925 .0852

.908 -.0086

.690 -.0017

.900 -.0415

.990 .0000



DATE 05 DEC 74 TABULATED SOURCE DATA - 14120 WING PRESSURES

AVES 87-710 14120 OR T3 S' LOWER WING PRESSURE (LB/IN²)
 MACH (1) = 2.499 BETA (8) = 6.1' PTO = 2313.444 PO = 136,000 R/FT = 4.015 Q = 793,000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.050 .2102 .2439
 .400 .1194
 .419 .2430
 .550 .2660
 .600 .1208
 .700 .1440
 .725 .1290
 .806 -.0008
 .850 .0442
 .900 .0221
 .950 -.0170
 .0000

MACH (1) = 2.499 BETA (9) = 7.140 PTO = 2313.444 PO = 136,000 R/FT = 4.015 Q = 793,000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6750 .8870

X/C

.050 .2430 .2751
 .400 .1409
 .419 .2847
 .550 .2971
 .600 .1414
 .700 .1654
 .725 .1517
 .806 .0161
 .850 .3597
 .900 -.0017
 .950 .0000



DATE 05 DEC 74 T-SIMULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMEL 87-710 1A12C (1) 1 ST LOWER WING PRESSURE

0.000000

12 APR 74

REFERENCE DATA

SPR = 2050.0000 SQ.FT. XREF = 993.0000 IN.
 LREF = 1328.0000 IN. WREF = 1.0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 MPDA = .000
 POWER = 1.000 CP = 31.280
 SREF = .916 GIMBAL = 1.000
 RIDDER = .000

MACH (1) = 2.499 BETA (1) = -7.270 PTO = 2313.444 PO = 136.000 R/FY = 2.381 Q = 593.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 -1.0292 -1.0296
 .400 -1.0175
 .419 .0188
 .590 -1.0016 -1.0231
 .600
 .700 -1.0157
 .725 -1.0090
 .808 -1.0026
 .850 -1.0392 -1.0641
 .900 .0040
 .950 .0000

MACH (1) = 2.499 BETA (2) = -6.240 PTO = 2313.444 PO = 136.000 R/FY = 2.381 Q = 593.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 -1.0289 .0257
 .400 -1.0196
 .419 .0131
 .590 .0009
 .600 -1.0372 -1.0430
 .700
 .725 -1.0113
 .808 -1.0003
 .850 -1.0172 -1.0653
 .900 -1.0012
 .950 .0000

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-710 1A12C ON TI SL LOWER WING PRESSURE (82033)

MACH (1) = 2.499 BETA (3) = -4.180 PTO = 2315.444 PO = 136.000 R/F7 = 2.381 Q = 593.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .090 .0208 .0336
 .400 -.0362
 .419 .0083
 .590 .0074
 .600 -.0329
 .700 -.0290
 .725 -.0359
 .806 -.0193
 .850 -.0687
 .900 -.1086
 .950 .0000

MACH (1) = 2.499 BETA (4) = -2.120 PTO = 2315.444 PO = 136.000 R/F7 = 2.381 Q = 593.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .090 .0793 .0856
 .400 -.0096
 .419 -.0217
 .590 .0001
 .600 -.0037
 .700 -.0930
 .725 -.0377
 .806 -.0990
 .850 -.0978
 .900 -.0779
 .950 .0000

MACH (1) = 2.499 BETA (5) = -.060 PTO = 2315.444 PO = 136.000 R/F7 = 2.381 Q = 593.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .090 .0679 .1077
 .400 .0274
 .419 -.0084
 .590 -.0161
 .600 .0232
 .700 -.0581
 .725 .0133



CALS 87-710 1A12C Q1 T1 S1 LOWER WING PRESSURE (LB/IN²)

MACH (1) = 2.499 BETA (5) = -.060

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.808 -.0568
 .850
 .900 -.0773
 .950 -.0830
 .0000

MACH (1) = 2.499 BETA (6) = 2.000 PTO = 2315.444 PO = 136.000 R/FT = 2.361 Q = 593.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090
 .400 .0976 .1462
 .419 .0544 .0600
 .550 .1194
 .600 .0487
 .700 .0103
 .725 .0437
 .806 -.0491
 .850 -.0297
 .900 -.0630
 .950 -.0269
 .0000

MACH (1) = 2.499 BETA (7) = 4.050 PTO = 2315.444 PO = 136.000 R/FT = 2.361 Q = 593.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090
 .400 .1924 .1965
 .419 .0905
 .550 .1600
 .600 .0794
 .700 .0290
 .725 .0663
 .806 -.0094
 .850 -.0051
 .900 -.0500
 .950 -.0426
 .0000



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/2033)

AVES 97-710 1A12C ON T1 S1 LOWER WING PRESSURE
MACH (1) = 2.499 BETA (8) = 6.110 PTC = 2315.444 PO = 136.000 R/PT = 2.381 Q = 593.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.050 .2090 .2432
.400 .1174
.419 .2365
.550 .2877
.600 .1198
.700 .1436
.725 .1272
.808 -.0010
.850 .0441
.900 -.0196
.950 .0000

MACH (1) = 2.499 BETA (9) = 7.140 PTC = 2315.444 PO = 136.000 R/PT = 2.381 Q = 593.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.050 .2420 .2733
.400 .1407
.419 .2798
.550 .2970
.600 .1398
.700 .1646
.725 .1521
.808 .0164
.850 .0585
.900 -.0075
.950 .0000



DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

ALB-0008 (12 APR 74)

AMES 87-710 1A12C (1) 11 S1 LOWER WING PRESSURE

REFERENCE DATA

SPOT = 26.0000 52.0 FT. WAP = 933.0000 IN.
 LREF = 1328.0000 IN. WAP = .0000 IN.
 SPOT = 1328.0000 IN. ZAP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 MPRSA = .000
 POWER = 1.000 CPR = 14.720
 SRRPR = .429 GINBAL = 1.000
 RUDDER = .000

MACH (1) = 2.499 BETA (1) = -7.270 PTO = 2190.778 PO = 128.556 R/F7 = 2.953 Q = 561.778

DEPENDENT VARIABLE C_p

SECTION (1) OVER WING

Y/B .4270 .5340 .6750 .8870

X/C

.050 -.0482 -.0244
 .400 -.0601
 .419 -.0100
 .550 -.0424
 .600 -.0633
 .700 -.0765
 .725 -.0851
 .806 -.0719
 .850 -.0962
 .900 -.0977
 .950 .0000

MACH (1) = 2.499 BETA (2) = -6.240 PTO = 2190.778 PO = 128.556 R/F7 = 2.953 Q = 561.778

DEPENDENT VARIABLE C_p

SECTION (1) OVER WING

Y/B .4270 .5340 .6750 .8870

X/C

.050 -.0392 .0269
 .400 -.0597
 .419 -.0278
 .550 -.0455
 .600 -.0572
 .700 -.0807
 .725 -.0876
 .806 -.0638
 .850 -.1203
 .900 -.1078
 .950 .0000

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES)

AVES 87-710 1A12C ON TI S1 LOWER WING PRESSURE (LBZ036)

MACH (1) = 2.499 BETA (3) = -4.182 PTO = 2150.778 PO = 128.556 R/PT = 2.953 Q = 561.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0124 .0270
.400 -.0451
.419 -.0175
.550 -.0074
.600 -.0365
.700 -.0807
.725 -.0516
.806 -.1145
.850 -.1058
.900 -.1364
.950 -.1088
1.0000

MACH (1) = 2.499 BETA (4) = -2.120 PTO = 2190.778 PO = 128.556 R/PT = 2.953 Q = 561.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0978 .0624
.400 -.0169
.419 -.0440
.550 -.0380
.600 -.0092
.700 -.0794
.725 -.0357
.806 -.0943
.850 -.1114
.900 -.0951
.950 .0000

MACH (1) = 2.499 BETA (5) = -.070 PTO = 2190.778 PO = 128.556 R/PT = 2.953 Q = 561.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0736 .1051
.400 .0228
.419 -.0137
.550 .0188
.600 .0126
.700 -.0624
.725 .0049



DATE 09 DEC 74 TABULATED SOURCE DATA - (A12C ORING PRESSURES)

(LB/IN²)

AUG 87-710 A12C ORING LOWER WING PRESSURE

MACH (1) = 2.499 BETA (5) = -.070

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.808	-.0594
.850	-.0734
.900	-.0742
.950	.0700

MACH (1) = 2.499 BETA (6) = 1.490 PTO = 2190.778 PO = 120.556 R/PT = 2.953 Q = 561.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.050	.0904	.1430
.400	.0496	
.419	.0753	
.590	.1189	.0418
.600		
.700	.0115	
.725	.0405	
.806	-.0465	
.850	-.0339	
.900	-.0684	-.0625
.950	.0000	

MACH (1) = 2.499 BETA (7) = 4.050 PTO = 2190.778 PO = 120.556 R/PT = 2.953 Q = 561.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.050	.1485	.1962
.400	.0853	
.419	.0686	
.590	.1579	.0746
.600		
.700	.0249	
.725	.0635	
.806	-.0096	
.850	-.0084	
.900	-.0556	-.0449
.950	.0000	

DATE 05 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

AMES 87-710 (A12C ON T1 S1 LOWER WING PRESSURE) (LB 2036)

MACH (1) = 2.439 BETA (8) = 6.100 PTO = 2190.778 PO = 128.556 R/PT = 2.953 Q = 561.778

SECTION 1 (LOWER WING) DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8570

X/C

.090 .2040 .2408
.400 .1115
.419 .2458
.550 .2653
.600 .1140
.700 .1379
.725 .1234
.808 -.0017
.850 .0397
.900 -.0221
.940 .0000

MACH (1) = 2.459 BETA (9) = 7.150 PTO = 2190.778 PO = 128.556 R/PT = 2.953 Q = 561.778

SECTION 1 (LOWER WING) DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8570

X/C

.090 .2353 .2755
.400 .1347
.419 .2877
.550 .2963
.600 .1356
.700 .1613
.725 .1495
.808 .0144
.850 .0539
.900 -.0130
.940 .0000

DATE 09 DEC 74 TABULATED SOURCE DATA - 1A18C (WING PRESSURES)

(LB/2039) (12 APR 74)

AVES 87-710 1A12C ON T1 31 LOWER WING PRESSURE

REFERENCE DATA

SWP = 2690.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1326.0000 IN. YREF = .0000 IN.
 BREF = 1326.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 WPSGA = .000
 POWER = .000 CTHEAL = 1.000
 RUDEEP = .000

WACH (1) = 3.002 BETA (1) = 7.290 PTO = 2308.889 PO = 63.000 R/FT = 3.035 Q = 395.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B .4270 .5340 .6730 .6870

X/C

.090 -.0211 .0099
 .400 -.0426
 .419 -.0315
 .590 -.0469
 .600 -.0462
 .700 -.0760
 .725 -.0870
 .806 -.0911
 .890 -.1066
 .900 -.1220
 .950 -.0753
 .990 .0000

WACH (1) = 3.002 BETA (2) = -6.250 PTO = 2308.889 PO = 63.000 R/FT = 3.035 Q = 395.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B .4270 .5340 .6730 .6870

X/C

.090 -.0070 .0285
 .400 -.0552
 .419 -.0266
 .590 -.0340
 .600 -.0668
 .700 -.0475
 .725 -.0633
 .806 -.1009
 .890 -.1258
 .900 -.0721
 .950 .0000

DATE 05 DEC 74

0.82039)

RELATED SOURCE DATA - (AIRFLOW PRESSURES)

0.82039)

WING 11 = 1.02 BETA 13 = -4.15C PTO = 2508.889 PO = 63.000 P/PT = 3.035 Q = 395.000

SECTION 11 ORBITER WING DEPENDENT VARIABLE CP

1/2 .4270 .5340 .6750 .6870

1/2
 .090 .0214 .0750
 .400 .0149
 .419 - .0214
 .590 .0350
 .600 .0088
 .600 .0714
 .600 .0382
 .606 -.0011
 .606 -.0093
 .606 -.1145
 .606 -.0968
 .606 .0000

WING 11 = 1.02 BETA 14 = -4.08C PTO = 2508.889 PO = 63.000 P/PT = 3.035 Q = 395.000

SECTION 11 ORBITER WING DEPENDENT VARIABLE CP

1/2 .4270 .5340 .6750 .6870

1/2
 .090 .0241 .1101
 .400 .0192
 .419 -.0193
 .590 -.0351
 .600 .0109
 .600 -.0523
 .600 -.0200
 .606 -.0591
 .606 -.0814
 .606 -.0999
 .606 -.0437
 .606 .0000

WING 11 = 1.02 BETA 15 = .05C PTO = 2508.889 PO = 63.000 P/PT = 3.035 Q = 395.000

SECTION 11 ORBITER WING DEPENDENT VARIABLE CP

1/2 .4270 .5340 .6750 .6870

1/2
 .090 .0465 .1543
 .400 .0390
 .419 .0293
 .590 .0145
 .600 .0379
 .606 -.0214
 .606 .0170



DATE 13 DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

(10-2038)

ANES 87-710 1A12C ON Y1 S1 LOWER WING PRESSURE

MACH (1) = 3.002 BETA (5) = .036

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.008 -.0218
.450 -.0581
.500 -.0528
.950 .0000

395.000

3.035

65.000

2908.889

PTO = 2.150

BETA (6) = 2.150

PTO = 2908.889

PO = 65.000

R/PT = 3.035

Q = 395.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .1227 .2178
.400 .0555
.419 .0580
.550 .0753
.600 .0663
.700 .0001
.725 .0403
.808 .0001
.850 -.0182
.900 -.0475
.970 .0000

395.000

3.035

65.000

2908.889

PTO = 4.210

BETA (7) = 4.210

PTO = 2908.889

PO = 65.000

R/PT = 3.035

Q = 395.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .1805 .2764
.400 .0955
.419 .1182
.550 .0681
.600 .1044
.700 .0304
.725 .1224
.808 .0304
.850 -.0056
.900 .0024
.950 .0000



DATE 03 DEC 72 TABULATED SOURCE DATA - (A12C WING PRESSURES)

WING (1) = 3.002 BETA (1) = 0.310 PTO = 2308.889 PO = 63.000 P/PT = 3.035 Q = 395.000
 ARES 07-110 (A12C TO T1 S1 LOWER WING PRESSURE (0.82035))

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y B .4270 .5340 .6700 .8070

X/C
 .090 .2104 .2843
 .400 .1507
 .419 .2434
 .550 .2147
 .600 .1561
 .700 .0796
 .725 .1432
 .800 .0709
 .850 .0523
 .900 .0321
 .950 .0000

WING (1) = 3.002 BETA (1) = 1.350 PTO = 2308.889 PO = 63.000 P/PT = 3.035 Q = 395.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y B .4270 .5340 .6700 .8070

X/C
 .090 .2546 .2909
 .400 .1647
 .419 .1902
 .550 .2528
 .600 .1795
 .700 .0842
 .725 .1124
 .800 .0735
 .850 .0793
 .900 .0447
 .950 .0000



DATE 25 DEC 74

TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

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AMES 87-710 1A12C OF 11 SL LOWER WING PRESSURE

(R. 0. 0. 0.) (12 APR 74)

REFERENCE DATA

SECT = 2560.0000 IN. WING = 953.0000 IN.
 CUB = 1326.0000 IN. WING = 1000.0000 IN.
 CUB = 1326.0000 IN. WING = 400.0000 IN.
 SCALE = 0.190 SCALE

PARAMETRIC DATA

ALPHA = .000 WING = .0000
 POWER = 1.000 CUB = 26.000
 STAMP = .768 SYMBOL = 1.000
 RUDDER = .000

WING (1) = 3.002 BETA (1) = -7.267 PTO = 2263.776 PO = 61.111 R/PY = 1.945 Q = 387.333

DEPENDENT VARIABLE CP

SECTION (1) LOWER WING

Y/B	.4270	.5340	.6730	.8870
X/C				
.090			-.0020	.0093
.400			-.0003	
.419	.0188			
.530		.0078		
.600			-.0310	
.700			-.0221	
.725		.0245		
.708	.0134			
.850		-.0210		
.900		.0153	-.0555	
.970			.0000	

WING (1) = 3.002 BETA (2) = -8.240 PTO = 2263.776 PO = 61.111 R/PY = 1.945 Q = 387.333

DEPENDENT VARIABLE CP

SECTION (1) LOWER WING

Y/B	.4270	.5340	.6730	.8870
X/C				
.090			.0035	.0461
.400			.0156	
.419	.0364			
.530		.0803		
.600			-.0104	
.700		-.0133		
.725		.0647		
.708	.0223			
.850		-.0223		
.900		.0127	-.0445	
.970			.0000	

DATE 08 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

AMES RP-710 (A12C OX T1 S1 LOWER WING PRESSURE (LBZ040))
 MACH (1) = 3.002 BETA (3) = -4.150 PTO = 2263.778 PO = 61.111 R/FT = 1.945 Q = 367.333

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B	.4270	.5340	.6730	.8870
X/C				
.050			.0469	.0705
.400			-.0170	
.419	.0141			
.550		.0009		
.600			-.0382	-.0075
.700		-.0049		
.725				
.806	.0176			
.850		-.0613		
.900	-.0027		-.0402	
.950		.0000		

MACH (1) = 3.002 BETA (4) = -2.060 PTO = 2263.778 PO = 61.111 R/FT = 1.945 Q = 367.333

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B	.4270	.5340	.6730	.8870
X/C				
.050			.1009	.1096
.400			.0184	
.419	.0107			
.550		.0118		
.600			.0249	
.700		-.0388		
.725	-.0128			
.806	-.0289			
.850		-.0665		
.900	-.0601		-.0429	
.950		.0000		

MACH (1) = 3.002 BETA (5) = .030 PTO = 2263.778 PO = 61.111 R/FT = 1.945 Q = 367.333

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B	.4270	.5340	.6730	.8870
X/C				
.050			.0949	.1545
.400			.0661	
.419	.0350			
.550		.0126		
.600			.0449	
.700		-.0207		
.725		-.0109		



DATE OF DEC 74
 TABULATED SOURCE DATA - (A12C WING PRESSURES)
 AVES 87-710 (A12C 01 T1 S1 LOWER WING PRESSURE)

0.82040

MACH (1) = 3.002 BETA (5) = .030

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .808 -.0274
 .850 -.0589
 .900 -.0880
 .950 .0000

MACH (1) = 3.002 BETA (6) = 2.120 PTO = 2263.778 PO = 61.111 R/PT = 1.945 Q = 367.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .080 .1242 .2170
 .400 .0821
 .419 .0731
 .550 .0961
 .600 .0060
 .700 .0667
 .725 .0744
 .808 -.0028
 .850 -.0247
 .900 -.0175
 .950 .0000

MACH (1) = 3.002 BETA (7) = 4.210 PTO = 2263.778 PO = 61.111 R/PT = 1.945 Q = 367.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .090 .1796 .2618
 .400 .0920
 .419 .1809
 .550 .0938
 .600 .1040
 .700 .0290
 .725 .1082
 .808 .0308
 .850 .0019
 .900 .0033
 .950 .0000



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES)

AMES 87-710 1A12C Q1 T1 31 LOWER WING PRESSURE (LB/IN²)

MACH (1) = 3.002 BETA (9) = 6.310 PTO = 2263.778 PO = 61.111 R/PT = 1.945 Q = 387.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.050 .2175 .2633
 .400 .1517
 .419 .2619 .2267
 .550 .1553
 .600 .1004
 .700 .1491
 .725 .0675
 .806 .0635
 .850 .0320
 .900 .0071
 .950 .0000

MACH (1) = 3.002 BETA (9) = 7.350 PTO = 2263.778 PO = 61.111 R/PT = 1.945 Q = 387.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.050 .2325 .2876
 .400 .1666
 .419 .2174 .2551
 .550 .1776
 .600 .0869
 .700 .1955
 .725 .0756
 .806 .0787
 .850 .0442
 .900 .0000
 .950 .0000

JMES 87-710 (A12C ON THE LOWER WING PRESSURE)

JMES 87-710 (A12C ON THE LOWER WING PRESSURE)

0.22X43) (12 APR 74)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2450.0000 SQ.FT. SREF = 933.0000 IN.
 CREF = 1328.0000 IN. CREF = .0000 IN.
 DREF = 1328.0000 IN. DREF = 400.0000 IN.
 SCALE = .0190 SCALE

PUA = .0000 MPSPA = .0000
 PUA = .0000 MPSPA = .0000
 PUA = .0000 MPSPA = .0000
 PUA = .0000 MPSPA = .0000

MACH (1) = 3.002 BETA (1) = -7.290 PTO = 2170.444 PO = 59.000 RAFT = 2.276 Q = 371.556
 MACH (2) = 3.002 BETA (2) = -6.240 PTO = 2170.444 PO = 59.000 RAFT = 2.276 Q = 371.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 -.0165 .0155
 .400 -.0360
 .419 -.0120
 .550 -.0219
 .600 -.0441
 .700 -.0605
 .725 -.0277
 .836 -.0723
 .890 -.0701
 .900 .0000
 .950

SECTION (2) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 -.0046 .0275
 .400 -.0467
 .419 -.0146
 .550 -.0119
 .600 -.0329
 .700 -.0554
 .725 -.0299
 .836 -.0241
 .890 -.0757
 .900 -.0451
 .950 .0000



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AVES 87-210 1A12C OF T1 S1 LOWER WING PRESSURE (LB/243)

WACH (1) = 3.002 BETA (3) = -4.150 PTD = 2170.444 PO = 59.000 R/PT = 2.276 Q = 371.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .090 .0314 .0683
 .400 -.0145
 .419 -.0188
 .550 -.0376
 .600 -.0089
 .700 -.0888
 .725 -.0448
 .808 -.0719
 .850 -.0988
 .900 -.0908
 .950 -.0574
 .0000

WACH (1) = 3.002 BETA (4) = -2.060 PTD = 2170.444 PO = 59.000 R/PT = 2.276 Q = 371.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .090 .0735 .1074
 .400 .0189
 .419 -.0117
 .550 -.0270
 .600 .0196
 .700 -.0533
 .725 -.0239
 .808 -.0846
 .850 -.0793
 .900 -.0907
 .950 -.0426
 .0000

WACH (1) = 3.002 BETA (5) = .030 PTD = 2170.444 PO = 59.000 R/PT = 2.276 Q = 371.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .090 .0656 .1327
 .400 .0497
 .419 .0300
 .550 .0083
 .600 .0363
 .700 -.2226
 .725 .0056



TABULATED SOURCE DATA - 1A12C WING PRESSURES

AVES 07-710 1A12C ON M S1 LOWER WING PRESSURE (0.9525)

MACH (1) = 3.002 BETA (5) = .030

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .808 -.0268
 .850 -.0623
 .900 -.0642
 .950 -.0302
 .0000

MACH (1) = 3.002 BETA (6) = 2.120 PTO = 2170.444 PO = 59.000 R/FY = 2.276 Q = 371.956

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .050 .1213 .2149
 .400 .0685
 .419 .0635
 .550 .0719
 .600 .0643
 .700 .0024
 .725 .0746
 .808 -.0034
 .850 -.0221
 .900 -.0459
 .950 -.0199
 .0000

MACH (1) = 3.002 BETA (7) = 4.210 PTO = 2170.444 PO = 59.000 R/FY = 2.276 Q = 371.956

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C
 .090 .1728 .2773
 .400 .0676
 .419 .0622
 .550 .0903
 .600 .1008
 .700 .0299
 .725 .1010
 .808 .0265
 .850 -.0063
 .900 -.0224
 .950 .0002
 .0000

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.002 BETA (R) = 6.310 PTO = 2170.444 PO = 59.000 R/PT = 2.276 Q = 371.556
 (LB/2043)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.4270	.5340	.6750	.8670
X/C				
.090			.2132	.2616
.400			.1474	
.419	.2459			
.550		.2134		.1576
.600			.0790	
.700		.1500		
.725				
.808	.0713		.0515	
.850		.0037		.0327
.900			.0000	
.950				

MACH (1) = 3.002 BETA (S) = 7.350 PTO = 2170.444 PO = 59.000 R/PT = 2.276 Q = 371.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.4270	.5340	.6750	.8670
X/C				
.090			.2507	.2661
.400			.1640	
.419	.2010			
.550		.2495		.1784
.600			.0465	
.700		.1895		
.725				
.808	.0734		.0779	
.850		.0242		.0432
.900			.0000	
.950				



DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 776

AMES 87-710 1A12C ON TI SI LOWER WING PRESSURE (LB/2044) (12 APR 74)

REFERENCE DATA

SREF = 1040.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = 0.00 MP5RA = .000
 BETA = 1.000 CPT = 41.000
 GAMMA = 1.150 GIMBAL = 1.000
 RPT = .000

MACH (1) = 3.002 BETA (1) = -7.290 PTO = 2417.364 PO = 65.545 R/PT = 1.749 Q = 413.818
 WACH (1) = 3.002 BETA (2) = -6.250 PTO = 2417.364 PO = 65.545 R/PT = 1.749 Q = 413.818

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8870

X/C

.090 .0239 .0099
 .400 .0171
 .419 .0358
 .550 .0342
 .600 -.0043
 .700 .0161
 .725 .0596
 .806 .0392
 .890 .0090
 .900 -.0234
 .950 .0000

MACH (1) = 3.002 BETA (2) = -6.250 PTO = 2417.364 PO = 65.545 R/PT = 1.749 Q = 413.818

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 .0126 .0428
 .400 .0392
 .419 .0473
 .550 .0414
 .600 .0193
 .700 .0119
 .725 .0511
 .806 .0397
 .890 .0333
 .900 -.0245
 .950 .0000



DATE 05 DEC 74 TABULATED SOURCE DATA - (A12C (WING PRESSURES))

AMES 87-710 (A12C OR TI SI LOWER WING PRESSURE) (LBZ044)

MACH (1) = 3.002 BETA (3) = -4.150 PTO = 2417.364 PO = 65.545 R/PT = 1.749 Q = 413.616

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .090 .0749 .0746
 .400 -.0006
 .419 .0278
 .550 .0216
 .600
 .700 -.0112
 .725 .0302
 .806 .0341
 .850 -.0288
 .900 .0074
 .950 -.0527
 .0000

MACH (1) = 3.002 BETA (4) = -2.080 PTO = 2417.364 PO = 65.545 R/PT = 1.749 Q = 413.616

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .090 .1153 .1125
 .400 .0212
 .419 .0289
 .550 .0334
 .600 .0272
 .700 -.0167
 .725 .0186
 .806 .0310
 .850 -.0546
 .900 -.0053
 .950 -.0420
 .0000

MACH (1) = 3.002 BETA (5) = .040 PTO = 2417.364 PO = 65.545 R/PT = 1.749 Q = 413.616

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .090 .1212 .1591
 .400 .0696
 .419 .0417
 .550 .0229
 .600 .0561
 .700 -.0141
 .725 -.0071



(LB2044)

AMES 87-710 (A12C C1 T1 S1 LOWER WING PRESSURE)

MACH (1) = 3.002 BETA (5) = .040

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.808	-.0334
.850	-.0417
.900	-.0708
.950	-.0809
	.0000

MACH (1) = 3.002 BETA (6) = 2.150 PTD = 2417.364 PO = 65.545 R/PT = 1.749 Q = 413.818

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.080		.1282	.2179
.400		.0903	
.419	.0608		
.550	.0531		.0667
.600		.0078	
.700	.0847		
.725			
.808	-.0041		
.850		-.0308	
.900	-.0399	-.0167	
.950		.0000	

MACH (1) = 3.002 BETA (7) = 4.210 PTD = 2417.364 PO = 65.545 R/PT = 1.749 Q = 413.818

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C

.080		.1757	.2811
.400		.0691	
.419	.1083		
.550	.0978		.1049
.600		.0503	
.700			
.725	.1233		
.808	.0321		
.850		-.0050	
.900	-.0174	-.0009	
.950		.0000	

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/2044)

MACH (1) = 3.002 BETA (8) = 0.315 PTD = 2417.364 PO = 65.545 R/PT = 1.749 Q = 413.818

SECTION (1) 1108111111 WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C				
.090		.2193	.2601	
.400		.1503		
.419	.2648			
.550		.2500		
.600			.1586	
.700		.1053		
.725		.1493		
.808	.0820			
.850		.0864		
.900	.0084		.0513	
.950		.0000		

MACH (1) = 3.002 BETA (9) = 7.350 PTD = 2417.364 PO = 65.545 R/PT = 1.749 Q = 413.818

SECTION (1) 1102311111 WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C				
.090		.2551	.2691	
.400		.1676		
.419	.2529			
.550		.2593		
.600			.1808	
.700		.0928		
.725		.1976		
.808	.0741			
.850		.0825		
.900	.0297		.0443	
.950		.0000		



AWE'S 87-710 1A12C OF 71 ST LOWER WING PRESSURE

(LBZ047) (12 APR 74)

REFERENCE DATA

SREF = 2890.0000 SQ.FT. WREF = 999.0000 IN.
 LREF = 1328.0000 IN. WREF = .0000 IN.
 BREF = 1328.0000 IN. WREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

WREF = 999.0000 WREF = .0000
 BREF = 400.0000 BREF = 1.0000
 SCALE = .0190 SCALE

MACH (1) = 3.499 BETA (1) = 7.560 PTO = 2311.222 PO = 30.000 R/PY = 2.395 Q = 280.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 -.0264 .0036
 .400 -.0472
 .419 -.0408
 .590 -.0428
 .600 -.0472
 .700 -.0866
 .729 -.0408
 .808 -.0723
 .890 -.0903
 .900 -.1017
 .900 -.0828
 .990 .0000

MACH (1) = 3.499 BETA (2) = -6.570 PTO = 2311.222 PO = 30.000 R/PY = 2.395 Q = 280.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 -.0122 .0292
 .400 -.0412
 .419 -.0379
 .590 -.0390
 .600 -.0284
 .700 -.0841
 .729 -.0330
 .808 -.0745
 .890 -.0848
 .900 -.1090
 .900 -.0408
 .990 .0000

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A1SEC WING PRESSURES)

AMES 87-P10 1A12C ON T1 S1 LOWER WING PRESSURE (LB/IN²)

MACH (1) = 3.499 BETA (3) = -4.380 PTO = 2311.222 PO = 30.000 R/PY = 2.395 Q = 240.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C
 .090 -.0006 .0702
 .400 -.0177
 .419 -.0204
 .590 -.0335
 .600 -.0139
 .700 -.0553
 .725 -.0215
 .808 -.0603
 .890 -.0761
 .900 -.1001
 .950 -.0297
 .0000

MACH (1) = 3.499 BETA (4) = -2.200 PTO = 2311.222 PO = 30.000 R/PY = 2.395 Q = 240.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C
 .090 .0577 .1726
 .400 .0194
 .419 .0167
 .590 -.0013
 .600 .0227
 .700 -.0266
 .725 .0116
 .808 -.0275
 .890 -.0570
 .900 -.0144
 .950 .0700

MACH (1) = 3.499 BETA (5) = -.010 PTO = 2311.222 PO = 30.000 R/PY = 2.395 Q = 240.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8670

X/C
 .090 .0762 .1569
 .400 .0347
 .419 .0434
 .590 .0503
 .600 .0582
 .700 -.0057
 .725 .0341

DATE 15 DEC 74

TABULATED SOURCE DATA - (A12C WING PRESSURES)

PAGE 782

AVES 87-710 (A12C O1 T1 S1 LOWER WING PRESSURE

(LBZ047)

MACH (1) = 3.499 BETA (5) = -.010

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.806	.5019
.850	-.0481
.900	-.0361
.950	.0074
	.0000

MACH (1) = 3.499 BETA (6) = 2.170 PTO = 2311.022 PO = 30.000 R/PT = 2.595 Q = 260.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.080	.1088	.2089
.400	.0631	
.419	.0875	
.550	.0609	
.600		.0920
.700	.0151	
.725	.0882	
.806	.0320	
.850		-.0270
.900	-.0313	.0233
.950		.0000

MACH (1) = 3.499 BETA (7) = 4.350 PTO = 2311.022 PO = 30.000 R/PT = 2.595 Q = 260.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090	.1905	.2008
.400	.1003	
.419	.1118	
.550	.1085	
.600		.1271
.700	.0260	
.725	.1303	
.806	.0413	
.850		.0015
.900	-.0127	.0441
.950		.0000



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES)

MACH (1) = 3.499 BETA (9) = 6.540 PTO = 2311.222 PO = 30.000 R/PT = 2.395 Q = 280.000
 A/E5 87-710 1A12C OR T1 S1 LOWER WING PRESSURE (LB/IN²)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .090 .2176 .2522
 .400 .1521
 .419 .0762
 .550 .1253
 .700 .1771
 .725 .0467
 .806 .1553
 .850 .0124
 .900 .0707
 .950 .0000

MACH (1) = 3.499 BETA (9) = 7.650 PTO = 2311.222 PO = 30.000 R/PT = 2.395 Q = 280.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .090 .2533 .2549
 .400 .1714
 .419 .1676
 .550 .1878
 .600 .1976
 .700 .0860
 .725 .1834
 .806 .1020
 .850 .0332
 .900 .0867
 .950 .0000



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

AVES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE (LB/IN²) (12 APR 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. WREF = 953.0000 IN.
 LREF = 1328.0000 IN. WREF = 1.0000 IN.
 SREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = 0.190 SCALE

PARAMETRIC DATA

POXA = 1.000 MPSEA = 1.000
 POYR = 1.000 OPR = 13.170
 POZ = 1.456 G1VEAL = 1.000
 PO = 1.000

MACH (1) = 3.499 BETA (1) = -7.660 PTO = 2175.556 PO = 28.889 R/PT = 1.734 Q = 244.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B .4270 .5340 .6730 .8870

X/C

.090 -.0028 .0189
 .400 -.0067
 .419 .0054
 .550 .0019
 .600 -.0283
 .700 -.0235
 .725 .0263
 .806 .0048
 .890 -.0270
 .900 -.0143
 .950 .0000

MACH (1) = 3.499 BETA (2) = -6.530 PTO = 2175.556 PO = 28.889 R/PT = 1.734 Q = 244.889

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B .4270 .5340 .6730 .8870

X/C

.090 .0053 .0336
 .400 -.0202
 .419 .0093
 .550 .0040
 .600 -.0243
 .700 -.0324
 .725 .0220
 .806 .0067
 .890 -.0417
 .900 -.0330
 .950 .0000



AMES 81-710 (AIRCRAFT PRESSURES) (197046)

MACH (1) = 3.499 BETA (3) = -4.395 PTO = 2175.556 PO = 28.869 R/PT = 1.734 Q = 244.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0213 .0710
 .400 -.0065
 .419 .0027
 .550 -.0065
 .600 -.0065
 .700 -.0435
 .725 -.0002
 .806 .0016
 .850 -.0819
 .900 -.0291
 .950 .0000

MACH (1) = 3.499 BETA (4) = -2.200 PTO = 2175.556 PO = 28.869 R/PT = 1.734 Q = 244.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0807 .1347
 .400 .0433
 .419 .0253
 .550 .0086
 .600 .0253
 .700 -.0244
 .725 .0144
 .806 -.0244
 .850 -.0534
 .900 -.0574
 .950 .0000

MACH (1) = 3.499 BETA (5) = -.020 PTO = 2175.556 PO = 28.869 R/PT = 1.734 Q = 244.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0744 .1539
 .400 .0587
 .419 .0639
 .550 .0424
 .600 .0552
 .700 .0571
 .725 .0274

AVES 87-710 A12C 01 "1 S1 LOWER WING PRESSURE

(LB/IN²)

MACH (1) = 3.499 BETA (5) = -.020

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.808	-.0040
.850	-.0352
.900	-.0344
.950	.0000
	.0071

MACH (1) = 3.499 BETA (6) = 2.170 PTO = 2173.556 PO = 28.889 R/FT = 1.734 Q = 244.889

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.050	.1060	.2062
.400	.0642	
.419	.0932	
.550	.0724	
.600		.0892
.700	.0208	
.725	.0845	
.808	.0341	
.850		-.0255
.900	-.0249	.0220
.950		.0000

MACH (1) = 3.499 BETA (7) = 4.360 PTO = 2173.556 PO = 28.889 R/FT = 1.734 Q = 244.889

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.050	.1477	.2090
.400	.0634	
.419	.1529	
.550	.0960	
.600		.1156
.700	.0261	
.725	.1083	
.808	.0498	
.850		-.0041
.900	-.0156	.0422
.950		.0000

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES)

ANES 87-710 1A12C ON TL SL LOWER WING PRESSURE (LB/IN²)

MACH (1) = 3.499 BETA (8) = 6.940 PTO = 2175.556 PO = 28.869 R/PT = 1.754 Q = 244.869

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8870

X/C

.090 .2103 .2280
.400 .1499
.419 .1138
.530 .1503
.600 .1724
.700 .0454
.725 .1625
.806 .0859
.890 .0164
.900 .0714
.950 .0000

MACH (1) = 3.499 BETA (9) = 7.630 PTO = 2175.556 PO = 28.869 R/PT = 1.754 Q = 244.869

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .4270 .5340 .6730 .8870

X/C

.090 .2534 .2556
.400 .1728
.419 .1651
.530 .1912
.600 .1941
.700 .0673
.725 .1837
.806 .0965
.890 .0372
.900 .0857
.950 .0000



DATE 25 DEC 74

TABULATED SOURCE DATA - (AIRFOIL WING PRESSURES)

PAGE 788

AIRCRAFT 11 SI LOWER WING PRESSURE (LB/RSI) (12 APR 74)

REFERENCE DATA

REF = 2590.0000 SQ.FT. WREF = 953.0000 IN.
 LREF = 1328.0000 IN. WREF = .0000 IN.
 BREF = 1328.0000 IN. WREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 WPSRA = .000
 POWER = 1.000 QPR = 23.860
 QPR = .025 GIBAL = 1.000
 QPR = .000

MACH (1) = 3.499 BETA (1) = -7.660 PTO = 2313.333 PO = 30.000 R/FT = 1.455 Q = 260.222

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0270 .0155
 .400 .0297
 .419 .0330
 .550 .0395
 .600 .0079
 .700 .0270
 .725 .0025
 .806 .0352
 .850 .0297
 .900 .0226
 .950 .0181
 .990 .0000

MACH (1) = 3.499 BETA (2) = -6.570 PTO = 2313.333 PO = 30.000 R/FT = 1.455 Q = 260.222

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0326 .0604
 .400 .0317
 .419 .0321
 .550 .0392
 .600 .0115
 .700 .0246
 .725 .0643
 .806 .0354
 .850 .0192
 .900 .0230
 .950 .0044
 .990 .0000



DATE 08 DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

AVES 87-710 1A12C 01 T1 S1 LOWER WING PRESSURE 0.870511

MACH (1) = 3.499 BETA (3) = -4.390 PTO = 2313.333 PO = 30.000 R/PT = 1.455 Q = 260.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0973 .0733
.400 .0130
.419 .0555
.590 .0508 .0140
.600 .0085
.725 .0543
.808 .0590
.850 -.0132
.900 .0130
.950 -.0078
.950 .0000

MACH (1) = 3.499 BETA (4) = -2.200 PTO = 2313.333 PO = 30.000 R/PT = 1.455 Q = 260.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .1153 .1367
.400 .0466
.419 .0422
.590 .0376 .0427
.600 -.0085
.725 .0422
.808 .0384
.850 -.0374
.900 -.0025
.950 -.0025
.950 .0000

MACH (1) = 3.499 BETA (5) = -.010 PTO = 2313.333 PO = 30.000 R/PT = 1.455 Q = 260.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C

.090 .0786 .1554
.400 .0608
.419 .0728
.590 .0324 .0568
.600
.725 .0116
.808 .0334
.850



AVES 87-210 (A12C ON T3 S1 LOWER WING PRESSURE (LB/IN²))

MACH (1) = 3.499 BETA (5) = -.010

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.408 .0058
 .850 -.0331
 .900 -.0482
 .950 .0000

MACH (1) = 3.499 BETA (6) = 2.170 PTC = 2313.333 PO = 30.000 R/FY = 1.455 Q = 260.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 .1082 .2077
 .400 .0734
 .419 .0994
 .550 .0771
 .600 .0293
 .700 .0874
 .725 .0313
 .808 .0224
 .850 -.0207
 .900 .0217
 .950 .0000

MACH (1) = 3.499 BETA (7) = 4.350 PTC = 2313.333 PO = 30.000 R/FY = 1.455 Q = 260.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 .1497 .1997
 .400 .1011
 .419 .1288
 .550 .1212
 .600 .1233
 .700 .0297
 .725 .1457
 .808 .0454
 .850 .0090
 .900 .0019
 .950 .0000



DATE 08 DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

WACH (1) = 3.499 BETA (8) = 6.940 PTO = 2313.333 PO = 30.000 R/PT = 1.455 Q = 260.222
 (LB/OSI)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.4270	.5340	.6730	.6870
X/C				
.090			.2154	.2311
.400			.1910	
.419	.1395			
.550		.1717		.1738
.600			.0511	
.700		.1067		
.725	.0980			
.806		.0276		
.850		.0200		.0718
.900		.0000		
.950				

WACH (1) = 3.499 BETA (9) = 7.630 PTO = 2313.333 PO = 30.000 R/PT = 1.455 Q = 260.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.4270	.5340	.6730	.6870
X/C				
.090			.2525	.2525
.400			.1708	
.419	.2180			
.550		.2051		.1931
.600			.0732	
.700		.1622		
.725	.1021			
.806		.0492		.0614
.850		.0869		
.900		.0000		
.950				



TABULATED SOURCE DATA - (A12C GAGE PRESSURES)

DATE 05 DEC 74

REZ052) (12 APR 74)

AWES 07-710 (A12C ON T1 S1 LOWER WING PRESSURE

REFERENCE DATA

SRCP = 2000.0000 SQ.FT. XREF = 933.0000 IN.
 LREF = 1320.0000 IN. WREF = .0000 IN.
 PREF = 1320.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

WACH (1) = 3.499 BETA (1) = -7.640 PTC = 2411.009 PO = 31.556 RFT = 1.346 Q = 271.333

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

X/B .4270 .5340 .6750 .8070

X/C
 .090 .0600 .0215
 .400 .0497
 .419 .0451
 .550 .0923
 .600 .0338
 .700 .0523
 .725 .0759
 .806 .0462
 .850 .0490
 .900 .0369
 .950 .0000

PARAMETRIC DATA

ALPHA = .000 WSPR = .000
 POWER = 1.000 OPR = 41.000
 GYRO = 1.150 GIMBAL = 1.000
 CLCGR = .000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

X/B .4270 .5340 .6750 .8070

X/C
 .090 .0556 .0530
 .400 .0551
 .419 .0080
 .550 .0002
 .600 .0422
 .700 .0494
 .725 .0603
 .806 .0535
 .850 .0443
 .900 .0314
 .950 .0000

WACH (1) = 3.499 BETA (2) = -8.970 PTC = 2411.009 PO = 31.556 RFT = 1.346 Q = 271.333

DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

WING (1) = 3.499 BETA (3) = -4.750 PTO = 2411.069 PO = 31.556 R/PY = 1.346 Q = 271.333
 (LB/IN²)

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING
 Y/B .4270 .5340 .6750 .8870

X/C
 .090 .1126 .1121
 .400 .0819
 .419 .0798 .0648
 .550 .0552
 .800 .0465
 .703 .0908
 .725 .0639
 .708 .0183
 .750 .0516 .0147
 .970 .0006

WING (1) = 3.499 BETA (4) = -2.200 PTO = 2411.069 PO = 31.556 R/PY = 1.346 Q = 271.333

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING
 Y/B .4270 .5340 .6750 .8870

X/C
 .090 .1413 .1440
 .400 .0345
 .419 .0843 .0802 .0903
 .550 .0223
 .703 .0790
 .725 .0095
 .708 .0280 .0021
 .750 .0000

WING (1) = 3.499 BETA (5) = -.010 PTO = 2411.069 PO = 31.556 R/PY = 1.346 Q = 271.333

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING
 Y/B .4270 .5340 .6750 .8870

X/C
 .090 .0498 .1025
 .400 .0939
 .419 .0608 .0618
 .550 .0791
 .800 .0802
 .703 .0422



TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

(0.82052)

AVES 07-710 (AIRCRAFT 71) SI LOWER WING PRESSURE

WACH (1) = 3.499 BETA (3) = -.010

SECTION (1) LOWER WING DEPENDENT VARIABLE CP

V/A .4270 .5340 .6750 .8870

K/C

.808 .0314
.890 -.0249
.900 -.0141
.900 .0000
.990 .0243

WACH (1) = 3.499 BETA (6) = 2.170 PTO = 2411.885 PO = 31.956 R/PY = 1.346 Q = 271.333

SECTION (1) LOWER WING DEPENDENT VARIABLE CP

V/A .4270 .5340 .6750 .8870

K/C

.390 .1122 .2107
.400 .0952
.419 .1054
.600 .0636
.700 .0946
.723 .0356
.723 .0643
.808 .0350
.890 -.0153
.900 .0207
.900 .0000
.990 .0000

WACH (1) = 3.499 BETA (7) = 4.390 PTO = 2411.885 PO = 31.956 R/PY = 1.346 Q = 271.333

SECTION (1) LOWER WING DEPENDENT VARIABLE CP

V/A .4270 .5340 .6750 .8870

K/C

.090 .1988 .2116
.400 .0901
.419 .1908
.590 .1088
.600 .1224
.700 .0473
.723 .1111
.808 .0592
.890 .0086
.900 .0424
.900 .0000
.990 .0000



DATE 09 DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

AVES 07-710 1A12C ON T1 S1 LOWER WING PRESSURE (LBX052)

MACH (1) = 3.499 BETA (0) = 0.340 PTO = 2411.000 PO = 31.956 R/PT = 1.346 Q = 271.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8070

X/C

.090 .2224 .2409
.400 .1355
.419 .1023
.590 .1561
.600 .1803
.700 .0216
.725 .1702
.876 .0960
.890 .0259
.900 .0759
.940 .0700
.950

MACH (1) = 3.499 BETA (9) = 7.650 PTO = 2411.000 PO = 31.956 R/PT = 1.346 Q = 271.333

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8070

X/C

.090 .2539 .2604
.400 .1744
.419 .2060
.590 .2136
.600 .2007
.700 .0610
.725 .1677
.808 .1010
.890 .0593
.900 .0691
.940 .0312
.950 .0000



DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURES

PAGE 705

ANES 87-710 1A12C M T1 S1 LOWER WING PRESSURE (LB/2055) (12 APR 74)

REFERENCE DATA

SREF = 2890.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

C.M.A. = .000 POWER = .000
 C.M.EAL = 1.000 RUDDER = 10.000

MACH (1) = 2.499 BETA (1) = -7.270 PTC = 2313.222 PO = 136.000 R/F T = 3.884 Q = 593.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .050 -.0450 -.0197
 .400 -.0586
 .419 -.0103
 .550 -.0477
 .600 -.0574
 .700 -.0779
 .725 -.0948
 .806 -.1279
 .850 -.1090
 .900 -.1367
 .950 -.0563
 .0000

MACH (1) = 2.499 BETA (2) = -6.240 PTC = 2313.222 PO = 136.000 R/F T = 3.884 Q = 593.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6750 .8870

X/C
 .050 -.0316 .0280
 .400 -.0560
 .419 -.0197
 .550 -.0432
 .600 -.0489
 .700 -.0761
 .725 -.0963
 .806 -.1339
 .850 -.1179
 .900 -.1462
 .950 .0007
 .0116



DATE 03 DEC 74

TABULATED SOURCE DATA - (A12C WING PRESSURES)

PAGE 797

AMES 87-110 (A12C 01 T1 ST LOWER WING PRESSURE)

(LB/2055)

MACH (1) = 2.499 BETA (3) = -4.500 PTD = 2313.222 PO = 136.000 R/FY = 3.884 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.050	.0142	.0330
.400	-.0410	
.419	-.0209	
.550	-.0053	
.600		-.0293
.700	-.0498	
.725	-.0472	
.806	-.1200	
.850	-.0942	
.900	-.1315	-.1021
.950	.0000	

MACH (1) = 2.499 BETA (4) = -2.440 PTD = 2313.222 PO = 136.000 R/FY = 3.884 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.050	.0456	.0697
.400	-.0113	
.419	-.0477	
.550	-.0484	
.600		-.0046
.700	-.0763	
.725	-.0316	
.806	-.0872	
.850	-.1059	
.900	-.1059	-.0882
.950	.0000	

MACH (1) = 2.499 BETA (5) = -.390 PTD = 2313.222 PO = 136.000 R/FY = 3.884 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.050	.0773	.1107
.400	.0283	
.419	-.0122	
.550	.0448	
.600		.0193
.700	-.0521	
.725	.0103	

DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-110 1A12C ON T1 S1 LOWER WING PRESSURE (LB/IN²)

MACH (1) = 2.499 BETA (5) = -.580

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.806 -.0604
.850 -.0595
.900 -.0736
.950 .0000

MACH (1) = 2.499 BETA (6) = 1.670 P/Q = 2313.222 P/Q = 136.000 R/P/T = 3.884 Q = 593.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 .0957 .1469
.400 .0546
.419 .0666
.550 .1239
.600 .0488
.700 .0205
.725 .0428
.806 -.0477
.850 -.0266
.900 -.0582
.950 .0000

MACH (1) = 2.499 BETA (7) = 3.750 P/Q = 2313.222 P/Q = 136.000 R/P/T = 3.884 Q = 593.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .4270 .5340 .6730 .8870

X/C

.090 .1478 .2025
.400 .0916
.419 .0761
.550 .1600
.600 .0681
.700 .0408
.725 .0857
.806 -.0091
.850 -.0015
.900 -.0369
.950 .0000



DATE 05 DEC 74 TABULATED SOURCE DATA - (A120 WING PRESSURES)

(0.2055)

AES 87-710 (A120 ON T1 SL LOWER WING PRESSURE

MACH (1) = 2.499 BETA (1) = 5.750 PTO = 2313.222 PO = 136.000 P/PT = 3.884 Q = 593.000

DEPENDENT VARIABLE CP

SECTION (1) LOWER WING

Y/P .4270 .5340 .6750 .8870

X/C
 .050 .2095 .2450
 .400 .1206
 .419 .2476 .2677
 .550 .1225
 .750 .1457
 .725 .1298
 .806 -.0012
 .850 .0444
 .900 -.0156
 .950 .0000

MACH (1) = 2.499 BETA (1) = 5.750 PTO = 2313.222 PO = 136.000 P/PT = 3.884 Q = 593.000

DEPENDENT VARIABLE CP

SECTION (1) LOWER WING

Y/P .4270 .5340 .6750 .8870

X/C
 .050 .2416 .2752
 .400 .1442
 .419 .2917 .2994
 .550 .1424
 .750 .1676
 .725 .1529
 .806 .0181
 .850 .0396
 .900 -.0047
 .950 .0000



DATE 03 DEC 74

TABULATED SOURCE DATA - (A12C WING PRESSURES)

PAGE 600

AVES 87-710 A12C C1 T1 S1 LOWER WING PRESSURE (LB/2056) (12 APR 74)

REFERENCE DATA

BRP = 2890.0000 SQ.FT. XMRP = 993.0000 IN.
 LMRP = 1328.0000 IN. YMRP = .0000 IN.
 BRP = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0100 SCALE

PARAMETRIC DATA

CMA = .000 POWER = 1.000
 CMA = 31.260 SMPR = .916
 CMA = 1.000 RUDDER = 10.000

WACH (1) = 2.499 BETA (1) = -7.590 PTO = 2302.667 PO = 135.000 R/FT = 2.364 Q = 590.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6730 .7800 .8670

X/C

.050
 .400
 .419
 .590
 .600
 .697
 .700
 .725
 .750
 .806
 .832
 .850
 .900
 .950
 .966

-.0240
 -.0115
 .0178
 .0007
 -.0201
 -.0077
 -.0014
 -.0132
 .0076
 -.0281
 -.0010

-.0226
 -.0116
 -.0211
 -.0096
 -.0116
 -.0324
 -.0616

WACH (1) = 2.499 BETA (2) = -6.560 PTO = 2302.667 PO = 135.000 R/FT = 2.364 Q = 590.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6730 .7800 .8670

X/C

.050
 .400
 .419
 .590
 .600
 .697
 .700
 .725
 .750
 .806
 .832
 .850
 .900
 .950
 .966

-.0267
 -.0130
 .0116
 .0010
 -.0113
 -.0327
 -.0177
 .0024
 -.0135
 .0026
 -.0355

.0285
 -.0396
 -.0527
 -.0353
 -.0810



DATE 05 21 74 TAILING SOURCE DATA - 1A120 WING PRESSURES

(LBZ056)

MACH (1) = 2.499 BETA (4) = -4.720 PTO = 2302.667 PO = 135.000 R/FT = 2.364 0 = 990.822

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B 2990 .4270 .5340 .6700 .7800 .8870

X/C					
.050	.0217				.0335
.400	-.0346				
.419		.0081			
.550		.0086			-.0324
.600					
.697	.0327				
.700		-.0267			
.725		-.0329			
.750				-.0602	
.806		-.0172			
.832	-.0305				
.850		-.0654			-.1338
.900	-.0271			-.0952	
.950					
.966	-.0100				

MACH (1) = 2.499 BETA (4) = -2.440 PTO = 2302.667 PO = 135.000 R/FT = 2.364 0 = 990.822

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B 2990 .4270 .5340 .6700 .7800 .8870

X/C					
.050	.0790				.0681
.400	-.0057				
.419					
.550	-.0205				
.600	.0057				-.0035
.697	.0711				
.700		-.0497			
.725		-.0336		-.0729	
.750					
.806	-.0916				
.832	-.0654				
.850		-.0954			-.0893
.900	-.0752				
.950	-.1232				
.966	-.0075				

DATE 08 DEC 74 TABULATED SOURCE DATA - (A12C RING PRESSURES)

AVES 07-710 (A12C 01 T1 S1 LOWER WING PRESSURE) (C57036)

MACH (1) = 2.499 BETA (0) = -.380 P/Q = 2302.697 P/Q = 135.000 P/FY = 2.364 Q = 590.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090				.0902		.1121
.400				.0328		
.419						
.550						
.600						.0262
.697						
.700						
.725						
.750						
.806						
.832						
.850						
.900						
.950						
.966						

MACH (1) = 2.499 BETA (0) = 1.680 P/Q = 2302.697 P/Q = 135.000 P/FY = 2.364 Q = 590.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090				.0995		.1494
.400				.0644		
.419						
.550						
.600						.0522
.697						
.700						
.725						
.750						
.806						
.832						
.850						
.900						
.950						
.966						



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES)

(1.82058)

WING (1) = 2.498 BETA (9) = 0.810 PTC = 2302.667 PO = 155.000 R/PT = 2.364 Q = 590.272

AVES 87-P10 1A12C (1) 11 S1 LOWER WING PRESSURE

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.050				.2403		.2749
.400				.1435		
.419		.2885				
.550			.2534			.1415
.600						
.697	.3503			.1671		
.700						
.725			.1544		.0352	
.750						
.808		.0203				
.832	.0042			.0814		
.850						
.900			.0641			
.950						
.966						

-.0043

.0564

-.0383



DATE OF DATA 1960.0000 SOURCE DATA - 1A1 - (WING PRESSURES)

19X059 (12 APR 74)

AVES 81-710 1A120 01 71 51 LOWER WING PRESSURE

REFERENCE DATA

SWP = 2060.0000 SWP = 857.0000 INL
 SWP = 1324.0000 INL SWP = 1000.0000 INL
 SWP = 1324.0000 INL SWP = 400.0000 INL
 SCALE = 10.00 SCALE

PARAMETRIC DATA

BETA = .000 POWER = .000
 GAMMA = 1.000 RIDDER = 10.000

WING AREA = 1.000 BETA = .000 RPT = 2311.776 PO = 63.000 RPT = 3.106 0 = 396.000

SECTION 1 - 1A1-710 210 DEPENDENT VARIABLE CP

1/2 .25% .42% .5340 .6730 .7400 .8070

X/C	1/2	25%	42%	5340	6730	7400	8070
.050				.0199		.0561	
.100				-.0076			
.150			.0032				
.200			.0662				-.0133
.250		.0058			-.0063		
.300			.0046				
.350						-.0455	
.400		-.0257					
.450		-.0363			-.0327		
.500			-.0170				-.0570
.550					-.0777		
.600		-.1094					



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 07-710 1A12C ON T1 31 LOWER WING PRESSURE (LB/2000) (12 APR 74)

REFERENCE DATA

WREF = 2000.0000 SQ.FT. WREF = 933.0000 IN.
 LREF = 1328.0000 IN. WREF = .0000 IN.
 PREF = 1328.0000 IN. WREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = .000
 CIPAL = 1.000 RUDDER = 10.000

MACH (1) = 3.002 BETA (1) = -7.290 PTO = 2310.778 PO = 63.000 P/PT = 3.029 Q = 395.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C					
.080			-.0168		.0147
.400			-.0058		
.419		-.0278			
.590			-.0408		-.0383
.600					
.697	-.0818				
.700			-.0691		
.725		-.0872			-.0791
.750					
.806		-.0928			
.832	-.0919				
.850			-.1009		
.900		-.1153			-.0636
.950			-.1135		
.966	-.0836				

MACH (1) = 3.002 BETA (2) = -6.240 PTO = 2310.778 PO = 63.000 R/PT = 3.029 Q = 395.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C					
.080			-.0025		.0333
.400			-.0490		
.419		-.0298			
.590			-.0403		-.0272
.600					
.697	-.0273				
.700			-.0819		
.725		-.0229			
.750					-.0634
.806		-.0996			
.832	-.0973				
.850			-.0949		-.0666
.900		-.1181			
.950			-.1108		
.966	-.0823				



DATE 08 DEC 74 TABULATED SOURCE DATA - (A12C (WING PRESSURES))

WING 11 = 1.102 BETA (3) = 4.110 PWO = 2310.778 PO = 63.100 R/PY = 3.029 Q = 399.778
 ARES P1-P10 (A12C OF 71 ST LOWER WING PRESSURE) (0.50000)

SECTION 11 (DEPENDENT VARIABLE CP)

WING	.2950	.4270	.5340	.6750	.7400	.8870
11						
.090				.0375		.0731
.400				-.0100		
.415		-.0235				
.550			-.0435			
.670						-.0045
.677	.0227					
.700				-.0644		
.725			-.0378			-.0676
.750						
.768		-.0436				
.780	-.0665			-.0827		-.0922
.870		-.1077				
.950			-.1020			
.966	-.1130					

WING (1) = 3.002 BETA (4) = -2.060 PWO = 2310.778 PO = 63.000 R/PY = 3.029 Q = 399.778

SECTION 11 (DEPENDENT VARIABLE CP)

WING	.2950	.4270	.5340	.6750	.7400	.8870
11						
.090				.0558		.1125
.400				.0233		
.415		-.0120				
.550			-.0356			
.670						.0129
.677	.0749					
.700				-.0465		
.725			-.0181			-.0456
.750						
.768		-.0564				
.780	-.0882					
.870			-.0755			-.0411
.950			-.0909			-.0946
.966	-.1144					



DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES)

AMES 07-710 1A12C ON 1/1 SL LOWER WING PRESSURE (LB/IN²)

MACH (1) = 3.002 BETA (8) = .040 PTO = 2310.778 PO = 63.000 R/PT = 3.029 Q = 393.778

SECTION 1 (1) UPPER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7900	.8870
X/C						
.090				.0421		.1598
.400				.0470		
.415		.0292				
.550			.0317			
.600						.0409
.697	.0684					
.700				-.0207		
.725			.0152			
.750					-.0278	
.808		-.0259				
.832	-.0188			-.0490		
.850					-.0286	
.900		.0662			-.0708	
.950						
.966	-.1012					

MACH (1) = 3.002 BETA (8) = 2.120 PTO = 2310.778 PO = 63.000 R/PT = 3.029 Q = 393.778

SECTION 1 (1) LOWER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6730	.7900	.8870
X/C						
.090				.1264		.2185
.400				.0598		
.419		.0825				
.550			.0600			
.600						.0864
.697	.2885					
.700			.0036			
.725			.0636			
.750					-.0093	
.808		.0023				
.832	-.0513					
.850				-.0132		
.900		-.0488			-.0148	
.950			-.0372			
.966	-.1082					



AGE 27.10 1426 24 75 51 1074 446 115 1000000 (0.82000)

DEPENDENT VARIABLE CP

1990	2,990	4,273	5,540	6,790	7,490	8,890
1991	3,990	5,273	6,540	7,790	8,490	9,890
1992	4,990	6,273	7,540	8,790	9,490	10,890
1993	5,990	7,273	8,540	9,790	10,490	11,890
1994	6,990	8,273	9,540	10,790	11,490	12,890
1995	7,990	9,273	10,540	11,790	12,490	13,890
1996	8,990	10,273	11,540	12,790	13,490	14,890
1997	9,990	11,273	12,540	13,790	14,490	15,890
1998	10,990	12,273	13,540	14,790	15,490	16,890
1999	11,990	13,273	14,540	15,790	16,490	17,890
2000	12,990	14,273	15,540	16,790	17,490	18,890
2001	13,990	15,273	16,540	17,790	18,490	19,890
2002	14,990	16,273	17,540	18,790	19,490	20,890
2003	15,990	17,273	18,540	19,790	20,490	21,890
2004	16,990	18,273	19,540	20,790	21,490	22,890
2005	17,990	19,273	20,540	21,790	22,490	23,890
2006	18,990	20,273	21,540	22,790	23,490	24,890
2007	19,990	21,273	22,540	23,790	24,490	25,890
2008	20,990	22,273	23,540	24,790	25,490	26,890
2009	21,990	23,273	24,540	25,790	26,490	27,890
2010	22,990	24,273	25,540	26,790	27,490	28,890
2011	23,990	25,273	26,540	27,790	28,490	29,890
2012	24,990	26,273	27,540	28,790	29,490	30,890
2013	25,990	27,273	28,540	29,790	30,490	31,890
2014	26,990	28,273	29,540	30,790	31,490	32,890
2015	27,990	29,273	30,540	31,790	32,490	33,890
2016	28,990	30,273	31,540	32,790	33,490	34,890
2017	29,990	31,273	32,540	33,790	34,490	35,890
2018	30,990	32,273	33,540	34,790	35,490	36,890
2019	31,990	33,273	34,540	35,790	36,490	37,890
2020	32,990	34,273	35,540	36,790	37,490	38,890
2021	33,990	35,273	36,540	37,790	38,490	39,890
2022	34,990	36,273	37,540	38,790	39,490	40,890
2023	35,990	37,273	38,540	39,790	40,490	41,890
2024	36,990	38,273	39,540	40,790	41,490	42,890
2025	37,990	39,273	40,540	41,790	42,490	43,890
2026	38,990	40,273	41,540	42,790	43,490	44,890
2027	39,990	41,273	42,540	43,790	44,490	45,890
2028	40,990	42,273	43,540	44,790	45,490	46,890
2029	41,990	43,273	44,540	45,790	46,490	47,890
2030	42,990	44,273	45,540	46,790	47,490	48,890
2031	43,990	45,273	46,540	47,790	48,490	49,890
2032	44,990	46,273	47,540	48,790	49,490	50,890
2033	45,990	47,273	48,540	49,790	50,490	51,890
2034	46,990	48,273	49,540	50,790	51,490	52,890
2035	47,990	49,273	50,540	51,790	52,490	53,890
2036	48,990	50,273	51,540	52,790	53,490	54,890
2037	49,990	51,273	52,540	53,790	54,490	55,890
2038	50,990	52,273	53,540	54,790	55,490	56,890
2039	51,990	53,273	54,540	55,790	56,490	57,890
2040	52,990	54,273	55,540	56,790	57,490	58,890
2041	53,990	55,273	56,540	57,790	58,490	59,890
2042	54,990	56,273	57,540	58,790	59,490	60,890
2043	55,990	57,273	58,540	59,790	60,490	61,890
2044	56,990	58,273	59,540	60,790	61,490	62,890
2045	57,990	59,273	60,540	61,790	62,490	63,890
2046	58,990	60,273	61,540	62,790	63,490	64,890
2047	59,990	61,273	62,540	63,790	64,490	65,890
2048	60,990	62,273	63,540	64,790	65,490	66,890
2049	61,990	63,273	64,540	65,790	66,490	67,890
2050	62,990	64,273	65,540	66,790	67,490	68,890
2051	63,990	65,273	66,540	67,790	68,490	69,890
2052	64,990	66,273	67,540	68,790	69,490	70,890
2053	65,990	67,273	68,540	69,790	70,490	71,890
2054	66,990	68,273	69,540	70,790	71,490	72,890
2055	67,990	69,273	70,540	71,790	72,490	73,890
2056	68,990	70,273	71,540	72,790	73,490	74,890
2057	69,990	71,273	72,540	73,790	74,490	75,890
2058	70,990	72,273	73,540	74,790	75,490	76,890
2059	71,990	73,273	74,540	75,790	76,490	77,890
2060	72,990	74,273	75,540	76,790	77,490	78,890
2061	73,990	75,273	76,540	77,790	78,490	79,890
2062	74,990	76,273	77,540	78,790	79,490	80,890
2063	75,990	77,273	78,540	79,790	80,490	81,890
2064	76,990	78,273	79,540	80,790	81,490	82,890
2065	77,990	79,273	80,540	81,790	82,490	83,890
2066	78,990	80,273	81,540	82,790	83,490	84,890
2067	79,990	81,273	82,540	83,790	84,490	85,890
2068	80,990	82,273	83,540	84,790	85,490	86,890
2069	81,990	83,273	84,540	85,790	86,490	87,890
2070	82,990	84,273	85,540	86,790	87,490	88,890
2071	83,990	85,273	86,540	87,790	88,490	89,890
2072	84,990	86,273	87,540	88,790	89,490	90,890
2073	85,990	87,273	88,540	89,790	90,490	91,890
2074	86,990	88,273	89,540	90,790	91,490	92,890
2075	87,990	89,273	90,540	91,790	92,490	93,890
2076	88,990	90,273	91,540	92,790	93,490	94,890
2077	89,990	91,273	92,540	93,790	94,490	95,890
2078	90,990	92,273	93,540	94,790	95,490	96,890
2079	91,990	93,273	94,540	95,790	96,490	97,890
2080	92,990	94,273	95,540	96,790	97,490	98,890
2081	93,990	95,273	96,540	97,790	98,490	99,890
2082	94,990	96,273	97,540	98,790	99,490	100,890
2083	95,990	97,273	98,540	99,790	100,490	101,890
2084	96,990	98,273	99,540	100,790	101,490	102,890
2085	97,990	99,273	100,540	101,790	102,490	103,890
2086	98,990	100,273	101,540	102,790	103,490	104,890
2087	99,990	101,273	102,540	103,790	104,490	105,890
2088	100,990	102,273	103,540	104,790	105,490	106,890
2089	101,990	103,273	104,540	105,790	106,490	107,890
2090	102,990	104,273	105,540	106,790	107,490	108,890
2091	103,990	105,273	106,540	107,790	108,490	109,890
2092	104,990	106,273	107,540	108,790	109,490	110,890
2093	105,990	107,273	108,540	109,790	110,490	111,890
2094	106,990	108,273	109,540	110,790	111,490	112,890
2095	107,990	109,273	110,540	111,790	112,490	113,890
2096	108,990	110,273	111,540	112,790	113,490	114,890
2097	109,990	111,273	112,540	113,790	114,490	115,890
2098	110,990	112,273	113,540	114,790	115,490	116,890
2099	111,990	113,273	114,540	115,790	116,490	117,890
2100	112,990	114,273	115,540	116,790	117,490	118,890

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TYPE	2990	4	3340	6750	7600	8670
X/C						
.090				.2244		.2092
.400				.1539		
.419		.2993				
.350			.2135			
.800						.1616
.697						
.1970						
.700					.0644	
.725			.1548			
.750						
.808		.0724			.0591	
.822						
.850	.0650					
.900			.0082	.0612		.0343
.925				.0165		
.944	-.0090					

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURE

PAGE 010

AMES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE (L57000)

MACH (1) = 3.002 BETA (9) = 7.350 P10 = 2310.776 PO = 63.000 R/PT = 3.029 Q = 395.776

SECTION 1110811TER WING

DEPENDENT VARIABLE CP

Y/B	.299C	.4270	.5340	.6730	.7800	.8870
X/C						
.050				.2604		.2944
.400				.1716		
.419		.2031				
.550			.2484			
.600						.1855
.697	.3823					
.700				.0914		
.725			.1957			
.750					.0751	
.806		.0768				
.832	.0625					
.850			.0835			
.900			.0323			.0920
.950				.0348		
.966	-.0729					



DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 811

AVES 87-710 1A12C Q1 T1 31 LOWER WING PRESSURE (LB/2081) (12 APR 74)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2090.0000 SQ.FT. XREF = 933.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0150 SCALE

ALPHA = .000 POWER = 1.000
 CPR = .06.860 SRMPR = .768
 GIMBAL = 1.000 RUDDER = 10.000

MACH (1) = 3.002 BETA (1) = -7.290 PTO = 2297.556 PO = 62.222 R/PT = 1.941 Q = 393.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090	.0021	.0117
.400	-.0143	
.419	.0198	
.550	.0069	
.600		-.0271
.697	-.0040	
.700		-.0164
.725	.0270	
.750		-.0343
.806	.0209	
.832	.0109	
.850		-.0143
.900	.0209	
.950		-.0514
.966	.0223	

MACH (1) = 3.002 BETA (2) = -6.240 PTO = 2297.556 PC = 62.222 R/PT = 1.941 Q = 393.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090	.0095	.0564
.400	.0169	
.419	.0442	
.550	.0215	
.600		-.0029
.697	.0002	
.700		-.0057
.725	.0287	
.750		-.0238
.806	.0244	
.832	.0067	
.850		-.0136
.900	.0167	
.950		-.0365
.966	.0168	



MACH (1) = 3.002 BETA (3) = -4.150 PTD = 2297.556 PO = 62.222 R/PT = 1.941 0 = 393.822
 (LB/2061)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .0592 .0753
 .400 -.0124
 .419 .0170 .0032
 .550 .0032
 .600 -.0030
 .697 .0075
 .700
 .725 -.0015
 .750 -.0333
 .806 -.0615
 .832 .0231
 .850 .0123
 .900 -.0353
 .950 .0043
 .966 -.0543
 .0217 -.0539

MACH (1) = 3.002 BETA (4) = -2.080 PTD = 2297.556 PO = 62.222 R/PT = 1.941 3 = 393.822

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .1057 .1118
 .400 .0250
 .419 .0139 .0121
 .550 .0121
 .600 .0292
 .697 .0294
 .700
 .725 -.0327
 .750 -.0103
 .806 -.0267
 .832 .0161
 .850 -.0605
 .900 -.0540
 .950 -.0863
 .966 .0218

DATE 03 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

AVES 87-710 (LB7061)

A12C OF T1 S1 LOWER WING PRESSURE

MACH (1) = 3.002 BETA (5) = .030 PTO = 2297.556 PO = 62.222 R/PT = 1.941 Q = 393.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .0994 .1627
 .400 .0717
 .419 .0363 .0124
 .550 .0908
 .600
 .697 .0976
 .700
 .725 .0147
 .750 .0077
 .806 .0133
 .832 .0228
 .850 .0524
 .900 .0811
 .950 .0176
 .966 .0777

MACH (1) = 3.002 BETA (6) = 2.130 PTO = 2297.556 PO = 62.222 R/PT = 1.941 Q = 393.222

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.050 .1276 .2206
 .400 .0894
 .419 .0801
 .550 .0593 .0696
 .600
 .697 .2466
 .700 .0107
 .725 .0790 .0097
 .750
 .806 .0006
 .832 .0164
 .850 .0196
 .900 .0349 .0133
 .950 .0402
 .966 .0080

DATE 05 DEC 74

TABULATED SOURCE DATA - (A18C WING PRESSURES)

PAGE 814

AMES 87-710 A18C ON T1 S1 LOWER WING PRESSURE (LB/IN²)

MACH (1) = 3.002 BETA (°) = 4.220 PTO = 2297.556 PO = 62.222 R/PT = 1.941 Q = 393.222

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090			.1655		.2826
.400			.1032		
.419		.1273			
.550			.0921		
.600					.1112
.697	.3268				
.700			.0437		
.725		.1277		.0228	
.750					
.808		.0322			
.832	.0103				
.850			.0063		.0069
.900		-.0063			
.950			-.0139		
.966	.0019				

MACH (1) = 3.002 BETA (°) = 6.320 PTO = 2297.556 PO = 62.222 R/PT = 1.941 Q = 393.222

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090			.2244		.2696
.400			.1557		
.419		.2917			
.550			.2266		.1635
.600					
.697	.2028				
.700			.1107		
.725		.1532		.0580	
.750					
.808		.0715			
.832	.0608				
.850			.0721		.0408
.900		.0113			
.950			.0192		
.966	-.0264				

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

WING (1) = 1.052 BETA (9) = 7.330 PTO = 20.97.556 PO = 82.822 R/PT = 1.941 Q = 593.222
(L92081)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	CP
.299C	.427C	.5340
.6730	.7800	.8870
.2585	.2934	
.1728		
.2230	.2514	
.1858		
.4015	.0933	
.1993		
.0742		
.0772		
.0582	.0868	.0508
.0354	.0372	
.0415		

(12 APR 74)

AMES 97-710 1A12C ON 71 51 LOWER WING PRESSURE

REFERENCE DATA

SREF = 2090.0000 90.871, 10000 = 953.0000 IN.
 LREF = 1320.0000 IN, 10000 = 10000 IN.
 SREF = 1320.0000 IN, 10000 = 400.0000 IN.
 SCALE = 0.150 SCALE

PARAMETRIC DATA

ALPHA = 1.000 POWER = 1.000
 GAMMA = 1.000 RUDDER = 10.000

WACH (1) = 3.459 BETA (1) = 7.900 PTO = 2508.333 PD = 30.000 R/PY = 2.414 Q = 259.556

SECTION (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100)

Y/B .2990 .4270 .5340 .6750 .7150 .8870

X/C

.090 -.0214 -.0099
 .400 -.0416
 .419 -.0447
 .590 -.0469
 .600 -.0452
 .697 -.0800
 .750 -.0618
 .725 -.0414
 .750 -.0778
 .808 -.0742
 .832 -.0769
 .850 -.0658
 .900 -.0934
 .950 -.0972
 .966 -.0443

WACH (1) = 3.459 BETA (2) = -6.560 PTO = 2508.333 PD = 30.000 R/PY = 2.414 Q = 259.556

SECTION (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100)

Y/B .2990 .4270 .5340 .6750 .7150 .8870

X/C

.090 -.0095 -.0360
 .400 -.0355
 .419 -.0365
 .590 -.0425
 .600 -.0235
 .697 -.0485
 .750 -.0374
 .725 -.0354
 .750 -.0759
 .808 -.0763
 .832 -.0756
 .850 -.0603
 .900 -.0969
 .950 -.0961
 .966 -.0723



DATE 05 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

WING (1) = 3.499 BETA (3) = -4.350 (LBZ064)

WING (1) = 3.499 BETA (3) = -4.350 PTO = 2308.333 PO = 30.000 R/FY = 2.414 0 = 259.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7400	.8870
X/C						
.050				.0040		.0720
.400				-.0503		
.419		-.0179				
.550			-.0326			
.600						-.0066
.697	-.0070					
.700			-.0464			
.725			-.0212		-.0574	
.750						
.776			-.0616			
.832	-.0627			-.0666		
.920		-.0912			-.0246	
.950				-.0636		
.966	-.0640					

WING (1) = 3.499 BETA (4) = -2.200 PTO = 2308.333 PO = 30.000 R/FY = 2.414 0 = 259.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7400	.8870
X/C						
.050				.0600		.1592
.400				.0223		
.419		.0121				
.550			-.0097			
.600						.0234
.697	.0634					
.700			-.0257			
.725			.0040			
.750					-.0363	
.776						
.832	-.0267					
.920			-.0547			-.0110
.950		-.0734				
.966	-.0656		-.0727			

WABULATED SOURCE DATA - (A12C WING PRESSURE)

AVES 87-710 A12C 21 71 S1 LOWER WING PRESSURE (LB/2084)

MACH (1) = 3.498 BETA (5) = -.020 PTO = 2306.333 PO = 30.000 P/FT = 2.414 Q = 259.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8870

X/C

.050 .0790 .1587
.400 .0435
.419 .0421
.530 .0225
.600 .0611
.697 .0015
.700 .0301
.725 .0011
.750 .0021
.806 .0011
.832 .0011
.900 .0108
.950 .0612
.966 -.0736

MACH (1) = 3.499 BETA (6) = 2.170 PTO = 2306.333 PO = 30.000 P/FT = 2.414 Q = 259.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8870

X/C

.050 .1098 .2085
.400 .0672
.419 .0875
.530 .0536
.600 .0917
.697 .2283
.700 .0202
.725 .0864
.750 .0044
.806 .0318
.832 .0093
.850 .0235
.900 .0282
.950 .0421
.966 -.0703

DATE OF DEC 74

TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

PAGE 819

MACH (1) = 3.458 BETA (1) = 4.350 PTO = 2508.333 PO = 30.000 R/PT = 2.414 Q = 259.556
 (LB/2064)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.250 .1526 .2040
 .400 .1051
 .419 .1097
 .550 .1016
 .600 .1281
 .697 .0266
 .750 .1288
 .809 .0190
 .822 .0404
 .890 .0093
 .900 .0053
 .920 -.0094
 .930 -.0099
 .946 -.0649

MACH (1) = 3.495 BETA (1) = 6.540 PTO = 2508.333 PO = 30.000 R/PT = 2.414 Q = 259.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .2196 .2586
 .400 .1525
 .419 .0732
 .550 .1180
 .600 .1751
 .697 .2118
 .750 .0489
 .809 .1540
 .822 .0653
 .890 .0916
 .900 .0118
 .920 .0140
 .930 -.0039
 .946 -.0348

DATE 09 DEC 74 TABULATED SOURCE DATA - (A.2C WING PRESSURES)

(LBZ084)

AMES 07-110 (A12C ON T1 S1 LOWER WING PRESSURE

MACH (1) = 3.499 BETA (9) = 7.630 PTO = 2306.333 PO = 50.000 R/PT = 2.414 Q = 719.514

SECTION 1 (1) ORBITED WING DEPENDENT VARIABLE CP

Y/B .2590 .4270 .5340 .6750 .7800 .8870

X/C

.090			.2614		.2608
.400			.1769		
.419		.1688			
.590		.1753			
.600					.1986
.697	.1781				
.700			.0758		
.725		.1748		.0818	
.750					
.808	.0978				
.832	.1062				
.890			.0398		.0900
.900		.0272			
.950		.0207			
.966	-.0283				



DATE 08 DEC 74
 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)
 ASES 87-710 (AIRCRAFT 11 51 LOWER WING PRESSURE)

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
 CTR = 23.860 SWAMP = .026
 GHEAL = 1.000 RUDDER = 10.000

REFERENCE DATA

WING = 8481.0000 SQ.FT. WING = 953.0000 IN.
 LIFT = 1326.0000 IN. WING = .0000 IN.
 PRESS = 1326.0000 IN. WING = 400.0000 IN.
 SCALE = .0100 SCALE

WING (1) = 3.499 BETA (1) = -7.660 PTO = 2310.778 PO = 30.000 R/P/T = 1.446 Q = 260.000

DEPENDENT VARIABLE CP

SECTION (1) OBITER WING

Y/B .8990 .4270 .5340 .6750 .7600 .8870

X/C

.080 .0413 .0281
 .400 .0440
 .419 .0297
 .590 .0324
 .600 .0293
 .697 .0256
 .700 .0413
 .725 .0563
 .750 .0271
 .776 .0266
 .832 .0266
 .850 .0451
 .900 .0353
 .900 .0374
 .900 .0314
 .966 .0411

WING (1) = 3.499 BETA (2) = -4.980 PTO = 2310.778 PO = 30.000 R/P/T = 1.446 Q = 260.000

DEPENDENT VARIABLE CP

SECTION (1) OBITER WING

Y/B .8990 .4270 .5340 .6750 .7600 .8870

X/C

.090 .0439 .0876
 .400 .0428
 .419 .0298
 .590 .0356
 .600 .0221
 .697 .0242
 .700 .0374
 .725 .0638
 .750 .0161
 .776 .0336
 .832 .0266
 .850 .0325
 .900 .0337
 .900 .0216
 .900 .0314
 .966 .0334



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.499 BETA (3) = -4.39C PTO = 2310.778 PO = 30.000 R/P/T = 1.446 Q = 280.000
 AWS 07-710 1A12C ON T1 S1 LOWER WING PRESSURE (LB/IN²)

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
 .09C .1047 .1019
 .40C .0284
 .419 .0349
 .59C .0402 .0300
 .600
 .697 .0214
 .700 .0511
 .729 .0064
 .750
 .808 .0900
 .832 .0437 .0063
 .890 .0322 -.0024
 .900
 .95C -.0037
 .968 .0397

MACH (1) = 3.498 BETA (4) = -2.800 PTO = 2310.778 PO = 30.000 R/P/T = 1.446 Q = 280.000

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
 .09C .1254 .1513
 .40C .0609
 .419 .0363
 .59C .0281 .0979
 .600
 .697 .0595
 .700 .0034
 .729 .0330
 .750
 .808 .0292
 .832 .0067
 .890 .0037
 .900 .0068 .0114
 .95C -.0063
 .968 .0337



DATE 05 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

WING (1) = 3.499 DELTA (5) = -.020 PTO = 2310.778 PO = 30.000 R/PY = 1.446 Q = 800.000
 (LB/2085)

SECTION (1) OBSERVER WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.5340	.6750	.7400	.8670
X/C						
.080				.0809		.1093
.400				.0934		
.419		.0886				
.590			.0416			.0753
.800						
.897	.0482			.0266		
.700					.0137	
.723			.0275			
.790						
.808		-.0014				
.832	.0493					
.850			-.0166			.0252
.900		-.0341				
.950			-.0434			
.966	.0416					

WING (1) = 3.499 DELTA (6) = 2.170 PTO = 2310.778 PO = 30.000 R/PY = 1.446 Q = 800.000

SECTION (1) OBSERVER WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.5340	.6750	.7400	.8670
X/C						
.080				.1236		.2214
.400				.0675		
.419		.0956				
.590			.0867			.1043
.800						
.897	.1375			.0421		
.700			.0880		.0157	
.723						
.790						
.808		.0291				
.832	.0231					
.850			-.0059			.0379
.900		-.0068				
.950			-.0307			
.966	.0264					



DATE 05 DEC 74

TABULATED SOURCE DATA - IAI2C (WING PRESSURES)

PAGE #24

MACH (1) = 3.489 BETA (7) = 4.350 PTO = 2310.778 PO = 30.000 R/FT = 1.446 Q = 800.00 (LB/2089)

AVE 97-710 IAI2C OI T1 S1 LOWER WING PRESSURE

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6730 .7800 .8870

X/C

.090					
.400			.1666		.2218
.419		.1444	.0985		
.550					
.600			.0947		.1337
.697	.1908				
.700					
.725			.0441		
.750		.1128			.0331
.808		.0483			
.832	.0555				
.850			.0136		
.900		.0114			.0581
.950			-.0072		
.966	.0069				

MACH (1) = 3.489

BETA (8) = 6.540

PTO = 2310.778

PO = 30.000

R/FT = 1.446

Q = 800.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090					
.400			.2352		.2508
.419		.1169	.1705		
.550					
.600			.1568		.1894
.697	.1929				
.700			.0669		
.725		.1811			.0791
.750					
.803		.0663			
.832	.0913				
.850			.0444		.0894
.900		.0408			
.950			.0248		
.966	.0105				

DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-710 1A12C OR T1 S1 LOWER WING PRESSURE (LB/2065)

WACH (1) = 3.489 BETA (2) = 7.630 PTO = 2317.778 PO = 50,000 R/FT = 1.446 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE C_p

Y/B .2990 .4270 .5340 .6730 .7800 .8670

X/C

.050			.2701		.2706
.400			.1678		
.419	.2080				
.550		.1938			.2089
.600					
.697	.1936				
.700			.0925		
.725		.1786		.0925	
.750					
.806	.0986				
.832	.1035				
.850			.0654		.0985
.900		.0459			
.950			.0323		
.966	-.0020				



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LBZ086) (12 APR 74)

AMES 87-710 1A12C 01 T1 S1 LOWER WING PRESSURE

REFERENCE DATA

WREF = 2690.0000 SQ.FT. WARP = 953.0000 IN.
 LREF = 1326.0000 IN. WARP = .0000 IN.
 BREF = 1326.0000 IN. ZARP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = .000
 G-MEAL = 3.000 RUDDER = .000

MACH (1) = 3.002 BETA (1) = -7.250 PTO = 2312.333 PO = 63.000 R/PT = 2.313 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7600	.8870
X/C						
.090				-.0106	.0178	
.400				-.0902		
.419			-.0278			
.550			-.0455			
.600						-.0342
.697	-.0776					
.700				-.0633		
.725			-.0659			
.750					-.0712	
.806			-.0691			
.832				-.0929		
.850			-.1071			-.0623
.900				-.1037		
.950						
.966	-.0667					

MACH (1) = 3.002 BETA (2) = -6.240 PTO = 2312.333 PO = 63.000 R/PT = 2.313 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7600	.8870
X/C						
.090				.0046	.0429	
.400				-.0426		
.419			-.0278			
.550			-.0979			
.600						-.0216
.697	-.0210					
.700			-.0551			
.725			-.0466			-.0786
.750						
.806			-.0973			
.832	-.0661			-.0854		
.850			-.1099			-.0601
.900				-.1049		
.950						
.966	-.0664					



DATE 08 DEC 74

TABULATED SOURCE DATA - (A12C WING PRESSURES)

PAGE 827

AME3 87-710 (A12C O1 T1 S1 LOWER WING PRESSURE) (L92088)

MACH (1) = 3.002 BETA (3) = -4.150 PTO = 2312.333 PO = 63.000 R/PT = 2.313 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.0289	.0798
.400	-.0039	
.419	-.0200	
.550	-.0379	.0008
.600		
.697	.0279	
.700		
.725	-.0580	
.750	-.0347	-.0801
.806	-.0791	
.822	-.0786	
.850	-.1007	-.0455
.900	-.0954	
.950		
.966	-.1077	

MACH (1) = 3.002 BETA (4) = -2.080 PTO = 2312.333 PO = 63.000 R/PT = 2.313 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.0643	.1208
.400	.0308	
.419	-.0082	
.550	-.0307	.0204
.600		
.697	.0624	
.700		
.725	-.0390	
.750	-.0136	-.0375
.806	-.0518	
.832	-.0472	
.850		
.900	-.0690	-.0334
.950	-.0821	-.0860
.966	-.1096	



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LBZ006)

AMES 87-710 1A12C ON TI SI LOWER WING PRESSURE

MACH (1) = 3.002 BETA (S) = .030 PTO = 2312.333 PO = 63.000 R/PT = 2.313 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.0941	.1678
.400	.0493	
.419		
.550	.0347	.0315
.600		.0460
.697	.0790	
.700		
.725		
.750	.0225	-.0159
.806		-.0192
.832	-.0208	
.850	-.0136	
.900		-.0430
.900	-.0594	-.0217
.950		-.0626
.966	-.0566	

MACH (1) = 3.002 BETA (S) = 2.120 PTO = 2312.333 PO = 63.000 R/PT = 2.313 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.1320	.2243
.400	.0661	
.419		
.550	.0602	.0792
.600		.0743
.697	.2900	
.700		.0112
.725		.0663
.750		.0009
.806	.0037	
.832	-.0282	
.850		-.0073
.900		-.0346
.900		-.0298
.950		
.966	-.1044	



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES)

MACH (1) = 3.002 BETA (7) = 4.210 PTO = 2312.333 PO = 63.000 R/PT = 2.313 Q = 396.000
 ASES 87-710 1A12C OA T1 S1 LOWER WING PRESSURE (LB/2000)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.290	.400	.419	.590	.600	.697	.700	.725	.750	.806	.832	.850	.900	.950	.966
.2990	.4270	.5340	.6750	.7800	.8870											
		.1628	.1037		.2863											
	.1205		.0851		.1144											
	.3119		.0385													
		.1259		.0297												
	.0333															
	.0193															
		-.0010			.0125											
		-.0120			-.0138											

MACH (1) = 3.002 BETA (8) = 6.300 PTO = 2312.333 PO = 63.000 R/PT = 2.313 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.290	.400	.419	.590	.600	.697	.700	.725	.750	.806	.832	.850	.900	.950	.966
.2990	.4270	.5340	.6750	.7800	.8870											
		.2238	.1579		.2729											
	.2448		.2126		.1622											
	.1924															
		.0859		.1575		.0596										
	.0770															
	.0666															
	.632															
	.908															
	.900			.0151		.0631										
	.950			.0183		.0425										



DATE 03 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

(LB/2000)

MACH (1) = 3.002 BETA (9) = 7.350 PTO = 2312.333 PO = 43.050 R/T = 2.313 Q = 396.600
 ANES 07-710 A12C O1 T1 S1 LOWER WING PRESSURE

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7850 .8970

X/C

.090	.2975	.2968
.400	.1722	
.419		
.550	.1929	
.600	.2537	.1557
.697		
.700	.3640	
.725		.0881
.750	.1929	
.750		.0763
.806	.0773	
.832	.0637	
.850		.0931
.900	.0329	.0550
.950		.0361
.966	-.0722	



DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES 87-10 1A12C OL T1 S1 LOWER WING PRESSURE (LBZ087) (12 APR 74)

REFERENCE DATA

REF = 2000.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1326.0000 IN. YREF = .0000 IN.
 BREF = 1326.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0150 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
 CPR = 25.860 SHPR = .788
 G1ICAL = 3.000 TUDER = .000

MACH (1) = 3.002 BETA (1) = -6.240 PTO = 2299.125 PO = 62.125 R/FT = 2.282 Q = 393.625

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .0500 .0052 .0534
 .400 .0099
 .419 .0389 .0148
 .550 .0148
 .600 .0155
 .697 -.0063
 .700 -.0144
 .725 .0148
 .750 -.0280
 .808 .0191
 .832 .0023
 .850 -.0208
 .900 .0156
 .950 -.0234
 .968 .0130

MACH (1) = 3.002 BETA (2) = -4.150 PTO = 2299.125 PO = 62.125 R/FT = 2.282 Q = 393.625

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .0500 .0651 .0765
 .400 -.0032
 .419 .0024
 .550 -.0120
 .600 .0053
 .697 .0290
 .700 -.0400
 .725 -.0227
 .750 -.0579
 .808 .0035
 .832 .0111
 .850 -.0697
 .900 -.0179
 .950 -.0744
 .968 .0135



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.002 BETA (3) = -2.060 PTD = 2299.125 PO = 62.125 P/FT = 2.262 Q = 393.625
 ASES 47-710 1A12C ON T1 S1 LOWER WING PRESSURE (LB/2067)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7900 .8870

X/C					
.050			.1065		.1161
.400			.0303		
.419		.0155			
.550			.0115		.0316
.600					
.697	.0534				
.750					
.725					
.750					
.808					
.832					
.850					
.900					
.950					
.966					

MACH (1) = 3.002 BETA (4) = .050 PTD = 2299.125 PO = 62.125 P/FT = 2.262 Q = 393.625

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7900 .8870

X/C					
.050			.1061		.1626
.400			.0763		
.419		.0368			
.550			.0192		.0561
.600					
.697	.0746				
.700					
.725					
.750					
.808					
.832					
.850					
.900					
.950					
.966					



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

(R.P.2097)

AVES 9.7125 1A12C ON TI SI LOWER WING PRESSURE

MACH (1) = 3.002 BETA (1) = 2.100 PTO = 2239.125 PO = 62.125 R/PT = 2.262 Q = 393.625

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7100 .8870

X/C
 .090 .1901 .2196
 .400 .0902
 .419 .0796
 .590 .0348 .0725
 .671
 .697 .2413
 .700 .0190
 .721 .0764 .0148
 .730 .0007
 .808
 .822 -.0190
 .822 -.0163
 .900 -.0281 -.0071
 .900 -.0361
 .950
 .996 .0112

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7100 .8870

X/C
 .090 .1648 .2832
 .400 .1060
 .419 .1053
 .590 .0634 .1127
 .600
 .697 .3314
 .700 .0480
 .721 .1306 .0226
 .730
 .808 .0351
 .822 .0074
 .822 .0096 .0110
 .900 -.0098
 .900 -.0104
 .950
 .996 .0106



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

(LBZ087)

ALLES 07-710 1A12C ON Y1 S1 LOWER WING PRESSURE

MACH (1) = 3.002 BETA (7) = 6.300 P70 = 2299.125 P70 = 62.125 R/P7 = 2.282 Q = 393.029

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/A .2990 .4270 .5340 .6730 .7800 .8800

X/C	.090	.2252	.2700
.400	.1615		
.419	.2827		
.550	.2265		.1615
.600			
.697	.1999		
.700		.1023	
.725		.1545	
.750			.0601
.806	.0711		
.832	.0819		
.850		.0741	
.900		.0164	.0415
.950		.0199	
.966	-.0366		

MACH (1) = 3.002 BETA (8) = 7.350 P70 = 2299.125 P70 = 62.125 R/P7 = 2.282 Q = 393.029

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/A .2990 .4270 .5340 .6730 .7800 .8800

X/C	.090	.2582	.2935
.400	.1732		
.419	.2137		
.550	.2579		.1856
.600			
.697	.4084		
.700		.0911	
.725		.1997	
.750			.0743
.806	.0603		
.832	.0827		
.850		.0654	
.900		.0361	.0349
.950		.0367	
.966	-.0416		



DATE 09 DEC 74 SOURCE DATA (INTERCOMING PRESSURES)

0.82090 (12 APR 74)

WES 87410 14120 01 51 LOWER WING PRESSURE

PARAMETRIC DATA

ALPHA = .000 POWER = .000
GAMMA = 3.000 RUDDER = .000

37 SOURCE DATA

WING = 804.000000 IN. WING = 943.000000 IN.
WING = 1324.000000 IN. WING = 1000.000000 IN.
WING = 1114.000000 IN. WING = 401.000000 IN.
SCALE = .0190 SCALE

WING (1) = 3.455 BETA (1) = -0.060 PTC = 2310.444 PO = 30.000 R/PT = 1.775 Q = 260.000

DEPENDENT VARIABLE CP

SECTION (1) LOWER WING

Y/E .2950 .4270 .5340 .6730 .7400 .8870

Y/E	.2950	.4270	.5340	.6730	.7400	.8870
CP						
.090						
.400						
.419						
.550						
.677						
.697						
.725						
.750						
.776						
.832						
.850						
.870						
.890						
.966						

DEPENDENT VARIABLE CP

SECTION (1) UPPER WING

Y/E .2950 .4270 .5340 .6730 .7400 .8870

Y/E	.2950	.4270	.5340	.6730	.7400	.8870
CP						
.090						
.400						
.419						
.550						
.677						
.697						
.725						
.750						
.776						
.832						
.850						
.870						
.890						
.966						



DATE 15 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

0.92090

ALCS 87-110 1A12C ON 71 51 LOWER WING PRESSURE

MACH (1) = 3.499 BETA (3) = 4.590 PTC = 2510.444 PO = 30.000 P/PT = 1.175 Q = 800.000

SECTION (1) UPPER WING DEPENDENT VARIABLE CP

Y/B .2590 .4270 .5340 .6750 .7800 .8870

Y/C
 .090
 .470
 .415
 .590
 .600
 .997
 .730
 .725
 .750
 .908
 .832
 .890
 .900
 .990
 .966
 .0120
 -.0027
 -.0181
 -.0260
 -.0756
 -.0148
 -.0569
 -.0807
 -.0824
 -.0764
 -.0274
 -.0732
 -.0220
 -.0172

MACH (1) = 3.499 BETA (4) = -2.200 PTC = 2510.444 PO = 30.000 P/PT = 1.175 Q = 800.000

SECTION (1) LOWER WING DEPENDENT VARIABLE CP

Y/B .2590 .4270 .5340 .6750 .7800 .8870

Y/C
 .090
 .400
 .419
 .590
 .600
 .997
 .700
 .725
 .790
 .908
 .832
 .890
 .900
 .966
 .0882
 .0304
 .0195
 -.0029
 -.0173
 .0046
 -.0303
 -.0471
 -.0856
 -.0634
 .1470
 .0309
 -.0309
 -.0038



DATE 08 DEC 74 TABULATED SOURCE DATA - (A12C AND G PRESSURES)

AMES 87-710 (A12C 01 T1 S1 LOWER WING PRESSURE) (LB/IN²)

MACH (1) = 3.499 BETA (7) = 4.350 PTO = 2310.444 PC = 30.000 R/PT = 1.773 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.2990	.4270	.5340	.6750	.7800	.8870
.090	.1974						.2109
.400	.1091						
.419	.1099						
.550	.1137						.1334
.600							
.697	.2680						
.700					.0331		
.725			.1350				
.750					.0255		
.806	.0456						
.832	.0179						
.850				.0082			.0564
.900			-.0016				
.950				-.0059			
.966	-.0568						

MACH (1) = 3.499 BETA (8) = 6.540 PTO = 2310.444 PC = 30.000 R/PT = 1.773 Q = 260.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.2990	.4270	.5340	.6750	.7800	.8870
.090	.2279						.2436
.400	.1649						
.419	.0724						
.550	.1263						.1628
.600							
.697	.2200				.0592		
.700				.1596			
.725						.0717	
.750	.0676						
.806	.0942						
.832				.0216			.0820
.850			.0250				
.900				.0055			
.950							
.966	-.0317						



DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 839

MACH (1) = 3.439 BETA (9) = 7.530 PTC = 2310.444 PO = 30.000 R/PT = 1.773 Q = 260.000
 AVES 87-710 1A12C 01 T1 S1 LOWER WING PRESSURE (LBZ09U)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050			.2634		.2660
.400			.1843		
.419		.1658			
.550		.1898			
.600					.2032
.697	.1806				
.700			.0786		
.723		.1805			
.750				.0861	
.806	.0969				
.832	.1115				
.850			.0461		
.900		.0320			.0953
.950			.0243		
.966	-.0209				



TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LBZ091) (12 APR 74)

AMES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE

REFERENCE DATA

SRF = 2650.0000 SQ.FT. WARP = 953.0000 IN.
 LREF = 1328.0000 IN. WARP = .0000 IN.
 BREF = 1328.0000 IN. ZARP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

WMA = .000 POWER F 1.000
 CWP = 23.860 SMPR = .828
 CWFAL = 3.000 RUDDER = .000

Q = 259.111

MACH (1) = 3.499 BETA (1) = -7.860 PTC = 2303.333 PO = 30.000 R/PT = 1.765 Q = 259.111

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.0345			.0247
.400			.0367			
.419		.0295				
.590			.0345			.0122
.600						
.697	.0299			.0367		
.700			.0923			.0225
.725						
.750			.0361			
.806	.0257			.0399		.0236
.832			.0363			
.890				.0339		
.900						
.950						
.966	.0454					

MACH (1) = 3.499 BETA (2) = -6.570 PTC = 2303.333 PO = 30.000 R/PT = 1.765 Q = 259.111

DEPENDENT VARIABLE CP

SECTION (1) ORBITER WING

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.090			.0374		.0673	
.400			.0379			
.419		.0319				
.590		.0357			.0178	
.600						
.697	.0297		.0347			
.700			.0598		.0145	
.725						
.750			.0374			
.806	.0330			.0336		.0156
.832			.0379			
.890			.0265			
.900						
.950						
.966	.0396					

DATE 09 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 041

MACH (1) = 3.499 BETA (3) = -4.380 PTO = 2303.333 PO = 30.000 R/PY = 1.765 0 = 259.111
 WING 67-710 1A12C 01 T1 S1 LOWER WING PRESSURE (LB/2091)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050				.1018		.0972
.400				.0217		
.419		.0543				
.550			.0417			
.600						.0298
.697	.0266					
.700				.0108		
.725			.0321			
.750						-.0165
.806		.0527				
.832	.0463					
.850			-.0339			
.900		.0310				-.0040
.950			-.0110			
.966	.0472					

MACH (1) = 3.499 BETA (4) = -2.200 PTO = 2303.333 PO = 30.000 R/PY = 1.765 0 = 259.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050				.1179		.1477
.400				.0561		
.419		.0412				
.550			.0306			
.600						.0574
.697	.0549					
.700			-.0007			
.725			.0308			
.750						-.0170
.806		.0275				
.832	.0538					
.850			-.0322			.0123
.900		.0015				
.950			-.0459			
.966	.0466					

AMES 87-710 (A12C 01 Y1 S1 LOWER MING PRESSURE

(LBZ0811)

MACH (1) = 3.499 BETA (5) = -.010 PTO = 2303.333 PO = 50.000 R/PT = 1.765 Q = 259.111

SECTION (1) ORBITER MING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090					
.400			.0869		.1636
.419			.0961		
.550		.0750			
.600			.0515		.0726
.697	.0516				
.700					
.725			.0254		
.750				.0190	
.806		.0078			
.832	.0578				
.850			-0.0197		.0291
.900		-.0290			
.950			-.0475		
.966	.0558				

MACH (1) = 3.499 BETA (6) = 2.170 PTO = 2303.333 PO = 50.000 R/PT = 1.765 Q = 259.111

SECTION (1) ORBITER MING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090					
.400			.1196		.2176
.419			.0687		
.550		.1036			
.600			.0796		.1043
.697	.1342				
.700			.0447		
.725				.0170	
.750		.0703			
.806		.0332			
.832	.0322				
.850			-.0053		.0354
.900		-.0063			
.950			-.0330		
.966	.0458				



DATE 08 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

(LBZ091)

AXES 87-710 A12C IN T1 SI LOWER WING PRESSURE

MACH (1) = 3.499 BETA (1) = 4.350 PTO = 2303.333 PO = 30.000 R/PT = 1.765 Q = 299.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/S .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .1666 .2163
 .400 .0982
 .419 .1459
 .550 .1017 .1270
 .600
 .697 .1967
 .700 .0465
 .725 .1175 .0286
 .750
 .806 .0537
 .832 .0566
 .850 .0123
 .900 .0139 .0536
 .950 -.0100
 .966 .0176

MACH (1) = 3.499 BETA (8) = 6.550 PTO = 2303.333 PO = 30.000 R/PT = 1.765 Q = 299.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/S .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .2252 .2435
 .400 .1651
 .419 .1360
 .550 .1710
 .600
 .697 .1964
 .700 .0652 .1846
 .725 .1666 .0722
 .750
 .806 .0938
 .832 .0972
 .850 .0396
 .900 .0341 .0699
 .950 .0182
 .966 .0044



DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURE)

(0.92091)

AVES 87-710 1A12C OF 71 51 LOWER WING PRESSURE

WING (1) = 3.1590 BETA (9) = 7.830 P/D = 2303.333 RD = 30.000 R/P/T = 1.765 Q = 289.111

SECTION (1) COUNTER WING DEPENDENT VARIABLES

Y/B .8990 .4270 .5340 .9750 .7500 .8370

X/C

.050			.2620		.2635
.400			.1012		
.419		.2058			
.550			.2074		.2017
.600					
.697	.8004				
.700			.0665		
.725		.1845			
.750				.0846	
.806		.1012			
.832	.1082				
.850			.0619		.0954
.900		.0413		.0353	
.950					
.966	.0037				



DATE 08 DEC 74 CALCULATED SOURCE DATA - (A12C WING PRESSURES)

AMES 67-710 (A12C ON T1 S1 LOWER WING PRESSURE) (LB2094) (12 APR 74)

REFERENCE DATA

SWP = 2890.007, 50.17, ρ_{ref} = 993.0000 IN.
 LWP = 1324.3570 IN, ρ_{ref} = .0000 IN.
 SPW = 1324.0700 IN, ρ_{ref} = 400.0000 IN.
 SCALE = 0.190 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = .000
 GIMBAL = 3.000 RUDDER = .000

MACH (1) = 2.499 BETA (1) = -7.270 PTO = 2315.556 PO = 136.000 R/PT = 2.941 Q = 993.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8670
X/C						
.050				-.0516		-.0233
.400				-.0613		
.419						
.550			-.0220			
.600			-.0482			-.0606
.697		-.0756				
.700				-.0627		
.725						
.750			-.1043			-.0689
.806			-.1367			
.832		-.1353				
.850				-.1157		-.1005
.900			-.1406			
.950			-.1264			
.966		-.1160				

MACH (1) = 2.499 BETA (2) = -6.240 PTO = 2315.556 PO = 136.000 R/PT = 2.941 Q = 993.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8670
X/C						
.050				-.0422		.0261
.400				-.0596		
.419						
.550			-.0346			
.600			-.0467			-.0516
.697		-.0680				
.700				-.0776		
.725						
.750			-.0964			-.0651
.806			-.1470			
.832		-.1422				
.850				-.1213		-.1050
.900			-.1319			
.950			-.1423			
.966		-.1174				



CASE A7-MIG (A12C CL TH SL LOWER WING PRESSURE (LB/IN²))

MACH (1) = 0.499 BETA (1) = 0.070 PTO = 2315.556 PO = 136.000 R/PT = 2.941 Q = 593.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5345 .6750 .7600 .8870

X/C

.050	.0652	.1094
.400	.0277	
.419	-.0149	
.550	.0553	
.600		.0156
.697	.1135	
.700		-.0522
.725	.0061	
.750		-.0505
.706	-.0636	
.732	-.0463	
.750		-.0636
.900	-.0461	-.0747
.950		-.0565
.966	-.1096	

MACH (1) = 2.499 BETA (1) = 1.990 PTO = 2315.556 PO = 136.000 R/PT = 2.941 Q = 593.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7600 .8870

X/C

.090	.0674	.1465
.400	.0534	
.419	.0624	
.550	.1276	
.600		.0000
.697	.1477	
.700		.0176
.725	.0374	
.750		-.0268
.706	-.0527	
.732	-.0464	
.750		-.0281
.900	-.0632	-.0596
.950		-.0751
.966	-.1877	



DATE 05 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

MACH (1) = 2.499 BETA (1) = 4.050 PTO = 2515.556 PO = 136.000 R/PT = 2.941 Q = 593.556
 AVE5 07-710 (A12C ON T. SL. UPPER WING PRESSURE) (0.92004)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C					
.050			.1444		.2032
.400			.0865		
.419		.0656			
.550		.1742			
.600					.0776
.697	.1837				
.700			.0286		
.725		.0620			
.750				.0011	
.808		-.0111			
.832	-.0118				
.850		-.0032			
.900		-.0519		-.0382	
.950			-.0512		
.966	-.1469				

MACH (1) = 2.499 BETA (1) = 6.110 PTO = 2515.556 PO = 136.000 R/PT = 2.941 Q = 993.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C					
.050			.1962		.2478
.400			.1174		
.419		.2582			
.550		.2602			.1174
.600					
.697	.3170		.1433		
.700		.1294		.0333	
.725					
.750					
.808		-.0026			
.832	-.0236				
.850		.0440			-.0166
.900		-.0019		-.0123	
.950					
.966	-.1809				



DATE 03 DEC 74

TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

PAGE 850

AVES 07-710 (AIRCRAFT 11: 51 LOWER WING PRESSURE) (18-2095) (12 APR 74)

REFERENCE DATA

SREF = 8950.0000 SQ.FT. XREF = 955.0000 IN.
 CREF = 1328.0000 IN. YREF = 1700.0000 IN.
 BREF = 1328.0000 IN. ZREF = 470.0000 IN.
 SCALE = 0.1% SCALE

PARAMETRIC DATA

L/DIA = 1.000 POWER = 1.000
 C/P = 51.280 S/PWR = .918
 G/P = 3.000 R/DUER = 1.000

WACH (1) = 2.499 BETA (1) = 0.240 PTO = 2505.100 PO = 159.100 R/PY = 2.916 Q = 590.800

SECTION 1 (LOWER WING DEPENDENT VARIABLE CP)

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
K/C						
.090				-.0347		-.0259
.400				-.0330		
.418		.0087				
.590			-.0045			
.600						-.0499
.697	-.0341					
.700				-.0311		
.725			-.0322			
.750						-.0411
.808		-.0210				
.832	-.0310			-.0499		
.890			-.0080			-.0732
.900				-.0495		
.950						
.966	-.0145					

WACH (1) = 2.499 BETA (2) = 0.240 PTO = 2505.100 PO = 159.100 R/PY = 2.916 Q = 590.800

SECTION 1 (LOWER WING DEPENDENT VARIABLE CP)

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
K/C						
.090				-.0362		.0239
.400				-.0367		
.418		-.0003				
.590			-.0085			
.600						-.0486
.697	-.0247					
.700			-.0539			
.725			-.0471			
.750						-.0571
.808		-.0239				
.832	-.0392			-.0679		
.890			-.0195			-.0930
.900				-.0483		
.950						
.966	-.0179					

DATA SOURCE: CALCULATED SOURCE DATA - (A12C MFG PRESSURE)

WING 1 1 2.499 BETA 13 = -4.140 PTO = 2303.100 MO = 135.100 RPT = 2.916 Q = 590.800
 A12C MFG PRESSURE (L20055)

SECTION 11: OBSERVED WING DEPENDENT VARIABLE CP

Y/C	2.499	.427	.5340	.6750	.7800	.8870
.090				.0128		.0320
.400				-.0357		
.419		.0065				
.550			.0110			-.0320
.600						
.697	.0113			-.0249		
.740						
.778			-.0417			-.0791
.840						
.878		-.0245				
.912	-.0377			-.0523		
.940			-.0357			-.1027
.970				-.1072		
.988	-.0172					

WING 1 1 2.499 BETA 14 = -2.130 PTO = 2303.100 MO = 135.100 RPT = 2.916 Q = 590.800

SECTION 11: OBSERVED WING DEPENDENT VARIABLE CP

Y/C	2.499	.4270	.5340	.6750	.7800	.8870
.090				.0727		.0860
.400				-.0117		
.419		-.0181				
.550			.0128			-.0035
.600						
.697	.0615			-.0507		
.740			-.0378			
.778					-.0742	
.840		-.0963				
.878	-.0672			-.0960		-.0685
.940			-.0836			
.970				-.1270		
.988	-.0162					



DATE 05 DEC 74

TABULATED SOURCE DATA - 1A120 WING PRESSURES

PAGE 132

MACH (1) = 2.499 BETA (5) = -.070 PTO = 2305.100 PO = 135.100 R/PT = 2.916 Q = 590.800
 AXES 87-710 1A120 01 70 51 LOWER WING PRESSURE (LB2095)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090					
.400			.0782		.1090
.419			.301		
.550		-.0112			
.600		-.0072			.0243
.697	.1552				
.700			-.0368		
.725		.0103			
.750			-.0514		
.808		-.0568			
.832	-.0764				
.850		-.0816			
.900		-.0854		-.0721	
.950		-.1083			
.966	-.0354				

MACH (1) = 2.499 BETA (6) = 1.990 PTO = 2305.100 PO = 135.100 R/PT = 2.916 Q = 590.800

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090					
.400			.0882		.1471
.419			.0613		
.550		.0482			
.600		.1262			.0456
.697	.1572				
.700			.0066		
.725		.0403			
.750				.0237	
.808		-.0513			
.832	-.0781				
.850		-.0291			-.0568
.900		-.0611			
.950		-.0739			
.966	-.0399				

DATE 03 DEC 74 TABULATED SOURCE DATA - AIRCRAFT PRESSURES

MACH (1) = 2.499 BETA (A) = 6.110 PTC = 2305.170 PC = 135.100 P/FT = 2.916 Q = 590.600
 AHEAD 67.010 TAIL 01.71 SI LOWER WING PRESSURE (LB/INCH)

SECTION (1) LOWER WING DEPENDENT VARIABLE CP

X/C .2950 .4270 .5340 .6750 .7800 .8870

X/C					
.050			.1445		.1993
.400			.0922		
.419		.0881			
.550			.1737		.0785
.600					
.697	.1892				
.700			.0272		
.725		.0645		.0012	
.750					
.806					
.832	-.0112				
.850	-.0129		-.0040		-.0395
.870		-.0903	-.0518		
.950					
.966	-.0824				

MACH (1) = 2.499 BETA (A) = 6.110 PTC = 2305.170 PC = 135.100 P/FT = 2.916 Q = 590.600

SECTION (1) UPPER WING DEPENDENT VARIABLE CP

X/C .2990 .4270 .5340 .6750 .7800 .8870

X/C					
.050			.1969		.2442
.400			.1156		
.419		.2360			
.550			.2817		.1156
.600					
.697	.3110				
.700			.1425		
.725		.1289		.0330	
.750					
.806	-.0035				
.832	-.0134				
.850		.0432			
.900		-.0055		-.0170	
.950			-.0132		
.966	-.0477				



DATE 05 DEC 74

TABULATED SOURCE DATA - (A12C RING PRESSURES)

PAGE 854

MACH (1) = 2.499 BETA (9) = 7.140 PTD = 2303.100 PC = 113.100 R/FT = 2.916 Q = 590.000
 AVE'S 67-710 (A12C OR T1 SI LOWER WING PRE. ME (PT 35)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050				.2269		.2761
.400				.1398		
.419		.2761				
.550			.3129			.1377
.600						
.697	.3459			.1656		
.700						
.725			.1303			
.730					.0342	
.806		.0120				
.832	-.0069					
.850				.0597		
.900			.0568			
.950				.0363		
.966	-.0217					
						-.0073



DATE OF DEC 74

TABULATED SOURCE DATA - (A12C WING PRESSURES)

PAGE 655

AMES 87-710 A12C 34 TI 51 LOWER WING PRESSURE (LBZ0361) (12 APR 74)

REFERENCE DATA

SWP = 6480.0000 SQ.FT. OAP = 913.0000 IN.
LEP = 1328.0000 IN. OAP = .0000 IN.
SEP = 1328.0000 IN. ZAP = 400.0000 IN.
SCALE = .0152 SCALE

PARAMETRIC DATA

ALPHA = .030 POWER = .000
GIMBAL = 4.000 RUDDER = .000

MACH (1) = 2.498 BETA (1) = -7.260 PTO = 2511.111 PO = 136.000 R/PT = 2.955 Q = 593.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2995	.4270	.5340	.6730	.7800	.8870
X/C						
.050						
.400						
.419						
.550						
.600						
.697						
.700						
.725						
.750						
.806						
.832						
.850						
.900						
.950						
.966						

MACH (1) = 2.498 BETA (2) = -6.240 PTO = 2511.111 PO = 136.000 R/PT = 2.955 Q = 593.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6730	.7800	.8870
X/C						
.050						
.400						
.419						
.550						
.600						
.697						
.700						
.725						
.750						
.806						
.832						
.850						
.900						
.950						
.966						

1602

SAVES 87-710 1A12 ON 15 LOWER WING PRESSURE

$\text{R/FT} = 2.95$

DEPENDENT VARIABLE - 29

	2000	42 M	5345	.6750	.7909	.8970
1						
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0.090	.0136	.0332
0.400	-.0420	
0.419		
0.550	-.0397	
0.600	-.0116	-.0265
0.697		
0.0305		
0.700	-.0801	
0.725	-.0560	
0.750		-.0953
0.806	-.1301	
0.832		
0.850	-.1509	
0.900		-.1014
0.950	-.1033	
0.966	-.1290	
	-.1143	

$\begin{aligned} & 966 \\ & -1143 \\ & \hline & 993,000 \end{aligned}$

DEPENDENT VARIABLE CP

	2000	42 TC	5340	.6750	.7900	.8870
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90						
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92						
93						
94						
95						
96						
97						
98						
99						
100						

[illegible]

DATE OF SECTION: 11/12/68 SOURCE DATA - 1A12C WING PRESSURES

(LB/2098)

WING AREA: 11.111 SQ FT = 2311.111 PO = 136.000 R/FT = 2.955 Q = 593.000

SECTION (1) UPPER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8970

X/C	DEPENDENT VARIABLE CP
.050	.0659
.400	.0272
.419	
.550	-.0186
.600	.0416
.697	.1159
.700	-.0546
.725	.0060
.750	-.0518
.806	-.0635
.832	-.0657
.850	-.0674
.900	-.0651
.950	-.0980
.966	-.1091
	-.0730
	.1082
	.0182

MACH (1) = 2.498 BETA (1) = 1.990 PTO = 2311.111 PO = 136.000 R/FT = 2.955 Q = 593.000

SECTION (1) LOWER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8970

X/C	DEPENDENT VARIABLE CP
.050	.0699
.400	.0564
.419	
.550	.0632
.600	.1285
.697	.1436
.700	.0236
.725	.0385
.750	-.0258
.806	-.0441
.832	-.0643
.850	-.0266
.900	-.0610
.950	-.0732
.966	-.1050
	-.0565
	.1489
	.0464



DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

WING (1) = 2.496 BETA (1) = 4.040 PTD = 2311.111 PO = 136.000 R/PT = 2.955 Q = 993.000
 AVE 07-710 1A12C M T1 S1 LOWER WING PRESSURE (0.92008)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090				.1401		.1972
.400				.0895		
.419		.0819				
.350			.1829			
.600						.0779
.697	.1888					
.700				.0204		
.725			.0819		.0006	
.750						
.806		-.1351				
.832	-.0153					
.850			-.0015			
.900			-.0505		-.0389	
.950				-.0429		
.966	-.1494					

WING (1) = 2.496 BETA (1) = 6.100 PTD = 2311.111 PO = 136.000 R/PT = 2.955 Q = 993.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.090				.1566		.2441
.400				.1172		
.419		.2379				
.350			.2735			
.600						.1172
.697	.3117					
.700			.1417			
.725			.1261		.0318	
.750						
.805		-.0038				
.832	-.0839					
.850			.0435			
.900		-.0019			-.0145	
.950			-.0136			
.966	-.1201					



DATE 05 DEC 74 THELALCO SOURCE DATA - (A120 WING PRESSURES)

WING AREA = 1.408 BETA (9) = 7.130 PTC = 2311.111 PO = 136.000 R/PT = 2.955 Q = 993.000 (LBZ/98)

WING AREA = 1.408 BETA (9) = 7.130 PTC = 2311.111 PO = 136.000 R/PT = 2.955 Q = 993.000 (LBZ/98)

SECTION 1110 - WING P. 6 DEPENDENT VARIABLE CP

Y	2450	.4270	.5240	.6750	.7800	.8870
X						
100				.2256		.2 38
400				.1396		
419		.2693				
550			.3030			.1373
600						
697	.3364			.1640		
700						
725			.1470		.0529	
750						
806		.0104				
832	-.0132					
850				.0575		
940			.0927			-.0049
950				.0322		
946	-.1108					



STABILIZED SOURCE DATA - !A12C (INGRESSURES)

1007-67 (12 Dec 74)

AMCS 87-110 1A12C ON 11.1 LOWER WING PRESSURE

PARAMETRIC DATA

ALPHA	=	.000	POWER	=	1.000
G	=	31.260	SPURR	=	.010
G*G*G	=	4.000	FLUOR	=	.000

REFERENCE DATA

SPS = 2500.000 SPS.T. WSP = 993.000 IN.
 LPS = 1994.000 IN. WSP = 1000.000 IN.
 BPS = 1988.000 IN. WSP = 400.000 IN.
 CSA = 15180 SCALE

$$\begin{aligned} \text{WACC} &= 2.49\% \\ \text{BETA} &= 1.1 \\ \text{COST OF EQUITY} &= 7.27\% \\ \text{COST OF DEBT} &= 3.5\% \\ \text{PD} &= 2.904 \\ \text{Q} &= 991.444 \end{aligned}$$

DEPENDENT VARIABLE CP

	.8870	.6790	.5340	.4270	.2990
--	-------	-------	-------	-------	-------

X/C	- .0229	- .0.74
.350		
400	- .0064	

90.50

- .0060

054	- .0028
529	5705
000	- .0028
454	- .0160

.632	-.0061		
.850		-.0253	
.900		.0184	
.950		-.0208	-.0547

966 .0154

DEPENDENT VARIABLE CP

	1960	1970	1980	1990	2000
Population	1,000	1,000	1,000	1,000	1,000
GDP	1,000	1,000	1,000	1,000	1,000
Per capita income	1,000	1,000	1,000	1,000	1,000
Life expectancy	1,000	1,000	1,000	1,000	1,000
Health expenditure	1,000	1,000	1,000	1,000	1,000
Education expenditure	1,000	1,000	1,000	1,000	1,000
Government expenditure	1,000	1,000	1,000	1,000	1,000
Private expenditure	1,000	1,000	1,000	1,000	1,000
Total expenditure	1,000	1,000	1,000	1,000	1,000
Public debt	1,000	1,000	1,000	1,000	1,000
Foreign debt	1,000	1,000	1,000	1,000	1,000
Internal debt	1,000	1,000	1,000	1,000	1,000
External debt	1,000	1,000	1,000	1,000	1,000
Debt service	1,000	1,000	1,000	1,000	1,000
Debt forgiveness	1,000	1,000	1,000	1,000	1,000
Debt restructuring	1,000	1,000	1,000	1,000	1,000
Debt cancellation	1,000	1,000	1,000	1,000	1,000
Debt conversion	1,000	1,000	1,000	1,000	1,000
Debt swap	1,000	1,000	1,000	1,000	1,000
Debt buyback	1,000	1,000	1,000	1,000	1,000
Debt refinancing	1,000	1,000	1,000	1,000	1,000
Debt rollover	1,000	1,000	1,000	1,000	1,000
Debt maturity	1,000	1,000	1,000	1,000	1,000
Debt interest	1,000	1,000	1,000	1,000	1,000
Debt principal	1,000	1,000	1,000	1,000	1,000
Debt yield	1,000	1,000	1,000	1,000	1,000
Debt return	1,000	1,000	1,000	1,000	1,000
Debt risk	1,000	1,000	1,000	1,000	1,000
Debt volatility	1,000	1,000	1,000	1,000	1,000
Debt correlation	1,000	1,000	1,000	1,000	1,000
Debt sensitivity	1,000	1,000	1,000	1,000	1,000
Debt elasticity	1,000	1,000	1,000	1,000	1,000
Debt rigidity	1,000	1,000	1,000	1,000	1,000
Debt flexibility	1,000	1,000	1,000	1,000	1,000
Debt adaptability	1,000	1,000	1,000	1,000	1,000
Debt sustainability	1,000	1,000	1,000	1,000	1,000
Debt solvency	1,000	1,000	1,000	1,000	1,000
Debt liquidity	1,000	1,000	1,000	1,000	1,000
Debt creditworthiness	1,000	1,000	1,000	1,000	1,000
Debt reputation	1,000	1,000	1,000	1,000	1,000
Debt transparency	1,000	1,000	1,000	1,000	1,000
Debt accountability	1,000	1,000	1,000	1,000	1,000
Debt responsibility	1,000	1,000	1,000	1,000	1,000
Debt integrity	1,000	1,000	1,000	1,000	1,000
Debt honesty	1,000	1,000	1,000	1,000	1,000
Debt fairness	1,000	1,000	1,000	1,000	1,000
Debt justice	1,000	1,000	1,000	1,000	1,000
Debt equity	1,000	1,000	1,000	1,000	1,000
Debt freedom	1,000	1,000	1,000	1,000	1,000
Debt security	1,000	1,000	1,000	1,000	1,000
Debt safety	1,000	1,000	1,000	1,000	1,000
Debt soundness	1,000	1,000	1,000	1,000	1,000
Debt prudence	1,000	1,000	1,000	1,000	1,000
Debt wisdom	1,000	1,000	1,000	1,000	1,000
Debt knowledge	1,000	1,000	1,000	1,000	1,000
Debt skill	1,000	1,000	1,000	1,000	1,000
Debt ability	1,000	1,000	1,000	1,000	1,000
Debt power	1,000	1,000	1,000	1,000	1,000
Debt influence	1,000	1,000	1,000	1,000	1,000
Debt authority	1,000	1,000	1,000	1,000	1,000
Debt prestige	1,000	1,000	1,000	1,000	1,000
Debt respect	1,000	1,000	1,000	1,000	1,000
Debt honor	1,000	1,000	1,000	1,000	1,000

100	- .0105	.0390
100	- .0269	
100		

0.0143
0.0261

.700	-.0201
.725	-.0023
.750	-.0423

.606	.0152
.632	-.0034
.690	
.900	.0131
.950	-.0292
	-.0795

DATE 09 DEC 74 CALCULATED SOURCE DATA - (A120 WING PRESSURES)

AMES REFINED A120 Q1 T1 S1 LOWER WING PRESSURE (LBZ/00)

WING 1 = 2.498 BETA (1) = -4.190 PTO = 2303.444 PO = 135.556 R/PT = 2.904 Q = 591.444

SECTION 1100B1TER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C	0.90	0.172	0.0366
.400		-.0321	
.419	.0126		
.590	.0210		
.600			-.0282
.697	.0334		
.700		-.0207	
.723		-.0237	
.750			-.0708
.806	.0014		
.832	-.0143		
.890		-.0755	
.900		-.0133	-.1010
.950		-.0677	
.966	.0009		

WING (1) = 2.498 BETA (4) = -2.130 PTO = 2303.444 PO = 135.556 R/PT = 2.904 Q = 591.444

SECTION 1100B1TER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C	0.90	0.0731	0.0707
.400		-.0061	
.419	-.0192		
.590	.0123		
.600			-.0004
.697	.0643		
.700		-.0023	
.723		-.0359	
.750			-.0731
.806	-.0622		
.832	-.0266		
.890		-.0960	
.900		-.0544	-.0663
.950		-.1216	
.966	.0046		



DATE 11 DE 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

WING (1) = 2.498 BETA (5) = -0.072 PTO = 2305.444 PO = 135.556 R/PT = 2.904 Q = 591.444
 AMES 07-210 1A12C 01 TO 51 LOWER WING PRESSURE (PSI/100)

SECTION (1) LOWER WING DEPENDENT VARIABLE CP

Y/R	.2990	.4270	.5540	.6730	.7905	.8970
X/C						
.090				.0763		.1092
.400				.0372		
.419		-.0132				
.550			-.0093			.0225
.600						
.697	.1174					
.700				-.0563		
.725			.0119		-.0513	
.730						
.806		-.0594				
.832	-.0631					
.850			-.0794			
.900		-.0646			-.0729	
.950			-.1069			
.966	-.0322					

WING (1) = 2.498 BETA (6) = 1.990 PTO = 2305.444 PO = 135.556 R/PT = 2.904 Q = 591.444

SECTION (1) UPPER WING DEPENDENT VARIABLE CP

Y/R	.2990	.4270	.5540	.6730	.7900	.8970
X/C						
.090				.0687		.1475
.400				.0615		
.419		.0446				
.550			.1190			
.600						.0467
.697	.1390					
.700				.0064		
.725			.0405			
.750					-.0258	
.806		-.0610				
.832	-.0675					
.850			-.0695			
.900		-.0626			-.0555	
.950			-.0755			
.966	-.0261					



DATE 08 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

WING (1) = 2.498 BETA (1) = 4.120 MTC = 2303.444 MC = 135.556 R/PT = 2.904 Q = 591.444 (LBZ100)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.259C	.427C	.534C	.675C	.780C	.887C
.090					.1437		.2020
.400					.0903		
.419			.0456				
.550				.1679			
.600							.0772
.697		.1878					
.700					.0246		
.725				.0640			.0003
.790							
.808			-.0109				
.832		-.0120			-.0042		
.890				-.0900			-.0415
.930					-.0579		
.966		-.0532					

WING (1) = 2.498 BETA (1) = 6.110 MTC = 2303.444 MC = 135.556 R/PT = 2.904 Q = 591.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	X/C	.259C	.427C	.534C	.675C	.780C	.887C
.090					.1971		.2454
.400					.1162		
.419			.2301				
.550				.2755			.1157
.600							
.697		.3083			.1426		
.700				.1286		.0327	
.725							
.790							
.808			-.0044				
.832		-.0065					
.890				.0430			-.0169
.930				-.0002			
.966		-.0182		-.0124			



VARIABLE SOURCE DATA - (AIRC WING PRESSURE)

0.00000

2.004 0 = 2.01 4

199.998 R/MY =

3.909.441 PO =

7.14

2.458

0.914

DEPENDENT VARIABLE

WING PRESSURE

2.990 2.420 2.340 2.070 1.600 1.000

0.990 0.400 0.419 0.390 0.300 0.297 0.200 0.125 0.100 0.098 0.032 0.030 0.030 0.008

0.272 0.307 0.156 0.191 0.013 0.092 0.061 0.0379 0.0305

0.278 0.137 0.0531 0.0011 0.0007



DATE 08 DEC 74

TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

PAGE 005

AMES 87-710 1A12C 01 71 S1 LOWER WING PRESSURE (292701) (12 APR 74)

REFERENCE DATA

SREF = 2000.0000 SQ.FT. XREF = 955.0000 IN.
 REF = 1328.0000 IN. WREF = .0000 IN.
 PREF = 1328.0000 IN. ZREF = 500.0000 IN.
 SCALE = .0150 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = .000
 GIMBAL = 4.000 RUDDER = .000

MACH (1) = 3.002 BETA (1) = -7.290 PTO = 2512.869 PO = 65.000 R/PY = 2.235 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	Z/B	CP	CP	CP	CP
.090					
.400					
.419					
.550					
.600					
.697					
.700					
.725					
.750					
.806					
.832					
.850					
.900					
.940					
.966					

MACH (1) = 3.002 BETA (2) = -6.240 PTO = 2512.869 PO = 65.000 R/PY = 2.235 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	Z/B	CP	CP	CP	CP
.090					
.400					
.419					
.550					
.600					
.697					
.700					
.725					
.750					
.806					
.832					
.850					
.900					
.940					
.966					

N75 2433

AIRCRAFT 1010 3.002 BETA (3) = -4.120 1A122 01 11 51 LOWER WING PRESSURE (0.07101)

MACH (1) = 3.002 BETA (4) = -2.060 PTC = 2312.849 PO = 6.000 P/FY = 2.235 0 = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B .0990 .4270 .5340 .6730 .7800 .8870

X/C

.050	.0210	.0727			
.400	-.0106				
.419	-.0254				
.550	-.0412				
.600		-.0252			
.697	.0204				
.700		-.0647			
.725	-.0404				
.750		-.0668			
.806	-.0837				
.832	-.0870				
.850		-.0836			
.900	-.1071		-.0506		
.950	-.1021				
.966	-.1127				

MACH (1) = 3.002 BETA (4) = -2.060 PTC = 2312.849 PO = 6.000 P/FY = 2.235 0 = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

X/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050		.0590	.1146		
.400		.0248			
.419	-.0135				
.550	-.0318				
.600			.0137		
.697	.0745				
.700		-.0465			
.725	-.0185				
.750		-.0447			
.806	-.0566				
.832	-.0543				
.850		-.0753			
.900	-.0682		-.0397		
.950	-.0946				
.966	-.1166				

DATE 03 DEC 77 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AVES P7-710 1A12C ON TI SI LOWER WING PRESSURE (LB/2101)

MACH (1) = 3.002 BETA (5) = .030 PTD = 2312.889 PO = 63.000 R/PT = 2.235 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .534 .6730 .7800 .8870

X/C

.095 .0898 .1617
 .400 .0453
 .419 .0307
 .550 .0293 .0425
 .600
 .697 .0744
 .700
 .725
 .750
 .806
 .832 -.0186
 .850
 .900
 .950
 .966 -.1020

MACH (1) = 3.002 BETA (6) = 2.120 PTD = 2312.889 PO = 63.000 R/PT = 2.235 Q = 396.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.050 .1266 .2227
 .400 .0618
 .419 .0598
 .550 .0805 .0710
 .600
 .697 .2841
 .700
 .725 .0051
 .750 .0820
 .806
 .832 -.0014
 .850 -.0343
 .900
 .950
 .966 -.1084



DATE 03-10-70 TABULATED SOURCE DATA - 1A10C (WING PRESSURES)

MACH (1) = 3.002 BETA (2) = 4.010 PTD = 2312.889 PO = 63.000 R/PT = 2.235 Q = 396.000
 ALSES 87-710 1A10C ON T1 SL LOWER WING PRESSURE (0.97301)

SECTION 110081001 WING DEPENDENT VARIABLE CP

Y/B	X/C	.2990	.4270	.5340	.6730	.7800	.8870
.090				.1633		.2629	
.400				.1017			
.419		.1206					
.550				.0931		.1116	
.600							
.697		.3087					
.700				.0334			
.725				.1217		.0233	
.750							
.806			.0290				
.832		.0133					
.850				-0.0020		.0090	
.900				-0.0148			
.950				-0.0170			
.966		-0.0905					

MACH (1) = 3.002 BETA (8) = 6.300 PTC = 2312.889 PO = 63.000 R/PT = 2.235 Q = 396.000

SECTION 110081001 WING DEPENDENT VARIABLE CP

Y/B	X/C	.2990	.4270	.5340	.6730	.7800	.8870
.090				.2224		.2687	
.400				.1565			
.419		.2344					
.550				.2229		.1608	
.600							
.697		.2004					
.700				.0603			
.725				.1557		.0564	
.750							
.806		.0752					
.832		.0655					
.850				.0546		.0397	
.900				.0101		.0155	
.950							
.966		-0.0705					

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

WACH (1) = 3.002 BETA (9) = 7.350 PTO = 2312.889 PO = 63.000 R/PY = 2.235 Q = 396.000
 AVE3 87-710 1A12C ON T1 S1 LOWER WING PRESSURE (LBZ1011)

SECTION (1) OVER THE WING DEPENDENT VARIABLE CP

Y/B	.8990	.4270	.5340	.6730	.7800	.8570
X/C						
.050				.2555		.2933
.400				.1722		
.419		.1962				
.550			.2623			.1632
.600						
.697	.3611			.0842		
.700			.1929		.0735	
.725						
.750						
.808		.0762				
.832	.0808					
.850				.0789		.0525
.900			.0511			
.950				.0518		
.966	-.0744					

STABILATED SOURCE DATA - (AIRC WING PRESSURES)

74 APR 12 (1974)

WAF 027-710 1A12C 01 T1 S1 LOWER WING PRESSURE

PARAMETRIC DATA

REFERENCE DATA

SPR	=	2890.0000	50. FT.	YARP	=	933.0000	IN.
LEP	=	1328.0000	IN.	YARP	=	.0000	IN.
BRP	=	1323.0000	IN.	ZARP	=	400.0000	IN.
SCALE	=	.0190 SCALE					

ALPHA =	.050	POWER =	1.000
C =	=	SNR =	.768
CUTAL =	4.000	RUDER =	.000

SCALE	GRADE	SCORE	PERCENT
100	100	100	100
90	90	90	90
80	80	80	80
70	70	70	70
60	60	60	60
50	50	50	50
40	40	40	40
30	30	30	30
20	20	20	20
10	10	10	10
0	0	0	0

SECTION (1) CRABIER WING

DEPENDENT VARIABLE CP

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2
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SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Year	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100																																								
Population	1000000	1050000	1100000	1150000	1200000	1250000	1300000	1350000	1400000	1450000	1500000	1550000	1600000	1650000	1700000	1750000	1800000	1850000	1900000	1950000	2000000	2050000	2100000	2150000	2200000	2250000	2300000	2350000	2400000	2450000	2500000	2550000	2600000	2650000	2700000	2750000	2800000	2850000	2900000	2950000	3000000	3050000	3100000	3150000	3200000	3250000	3300000	3350000	3400000	3450000	3500000	3550000	3600000	3650000	3700000	3750000	3800000	3850000	3900000	3950000	4000000	4050000	4100000	4150000	4200000	4250000	4300000	4350000	4400000	4450000	4500000	4550000	4600000	4650000	4700000	4750000	4800000	4850000	4900000	4950000	5000000	5050000	5100000	5150000	5200000	5250000	5300000	5350000	5400000	5450000	5500000	5550000	5600000	5650000	5700000	5750000	5800000	5850000	5900000	5950000	6000000	6050000	6100000	6150000	6200000	6250000	6300000	6350000	6400000	6450000	6500000	6550000	6600000	6650000	6700000	6750000	6800000	6850000	6900000	6950000	7000000	7050000	7100000	7150000	7200000	7250000	7300000	7350000	7400000	7450000	7500000	7550000	7600000	7650000	7700000	7750000	7800000	7850000	7900000	7950000	8000000	8050000	8100000	8150000	8200000	8250000	8300000	8350000	8400000	8450000	8500000	8550000	8600000	8650000	8700000	8750000	8800000	8850000	8900000	8950000	9000000	9050000	9100000	9150000	9200000	9250000	9300000	9350000	9400000	9450000	9500000	9550000	9600000	9650000	9700000	9750000	9800000	9850000	9900000	9950000	10000000

[illegible]

DATE 05 DEC 74

TABULATED SOURCE DATA - (A12C (WING PRESSURES))

PAGE 071

AMES 87-710 (A12C OR T1 S1 LOWER WING PRESSURE (LBZ104))

MACH (1) = 3.002 BETA (3) = -4.160 PTO = 2501.776 PO = 62.444 R/FT = 2.207 Q = 593.669

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090			.0954	.0712	
.400			-.0082		
.419		.0006			
.590			-.0073		
.600				-.0011	
.697					
.700	.0316				
.725			-.0424		
.750		-.0123			
.806				-.0606	
.832	.0206	.0136			
.850			-.0634		
.900		-.0132		-.0505	
.950			-.0637		
.966	.0186				

MACH (1) = 3.002 BETA (4) = -2.060 PTO = 2501.776 PO = 62.444 R/FT = 2.207 Q = 593.669

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090			.0915	.1104	
.400			.0228		
.419		.0105			
.590			.0121		
.600				.0285	
.697	.0541				
.700			-.0376		
.725					
.750		-.0110		-.0474	
.806		-.0210			
.832	.0170				
.850			-.0616		
.900		-.0524		-.0371	
.950			-.0696		
.966	.0226				

DATE 03 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

WACH (1) = 5.002 BETA (5) = .020 PTO = 2501.778 PO = 62.444 R/FT = 2.207 Q = 393.869
 AMES 07-710 1A12C O1 T1 S1 LOWER WING PRESSURE (LB2104)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.050				.0926		.1595
.400				.0694		
.419		.0279				
.550			.0099			
.600						.0447
.697	.0900					
.700				-.0168		
.725			-.0120			
.750				-.0146		
.806		-.0310				
.832	-.0170					
.850			-.0540			
.900		-.0843			-.0211	
.950			-.0604			
.966	.0042					

WACH (1) = 5.002 BETA (6) = 2.180 PTO = 2501.778 PO = 62.444 R/FT = 2.207 Q = 393.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.050				.1257		.2170
.400				.0902		
.419		.0715				
.550			.0743			
.600						.0664
.697	.2532					
.700			.0110			
.725			.0868		.0102	
.750		-.0035				
.806						
.832	-.0187					
.850			-.0253			-.0146
.900		-.0360				
.950			-.0437			
.966	.0066					

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MAC (1) = 3.002 BETA (7) = 4.210 PTO = 2501.778 PO = 62.444 R/FT = 2.207 Q = 393.869
 AVE3 67-710 1A12C O1 T1 S1 LOWER WING PRESSURE (LB/2104)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C					
.090			.1570		.2613
.400			.0999		
.419		.1080			
.590		.0949			.1067
.600					
.697	.3808				
.700			.0374		
.725		.1226			.0161
.730					
.808	.0841				
.832	.0040		.0031		.0087
.850					
.900		-.0156			
.950			-.0156		
.966	.0076				

MAC (1) = 3.002 BETA (8) = 6.300 PTO = 2501.778 PO = 62.444 R/FT = 2.207 Q = 393.869

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C					
.090			.2184		.2646
.400			.1524		
.419		.2836			
.590		.2261			.1607
.600					
.697	.1917		.0925		
.700					
.725		.1466			.0566
.730					
.808	.0875				
.832	.0771		.0626		.0377
.850		.0106			
.900			.0142		
.950					
.966	-.0361				

DATE 03 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 874

AMES 87-710 1A12C ON TI SI LOWER WING PRESSURE (LBZ104)

MACH (1) = 3.002 BETA (9) = 7.340 P/D = 2301.776 PO = 62.444 R/PY = 2.207 0 = 393.889

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8870

X/C

.090

.400

.419

.550

.600

.697

.700

.723

.730

.708

.632

.850

.900

.950

.966

.2887

.1098

.2517

.2598

.1787

.0612

.1937

.0760

.0790

.0304

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REFERENCE DATA
 WING = 2990.0000 SQ.FT. WING = 953.0000 IN.
 LWB = 1328.0000 IN. WLB = .0000 IN.
 WBT = 1328.0000 IN. WBT = 400.0000 IN.
 SCALE = .0190 SCALE
 MACH (1) = 3.499 BETA (1) = -7.670 PTO = 2514.111 PO = 30.000 R/PT = 1.741 Q = 290.444
 ALPHA = .000 POWER = .000
 GIMBAL = 4.000 RUDDER = .000

PARAMETRIC DATA

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.080				-.0212		-.0044
.400				-.0374		
.419			-.0595			
.550				-.0449		-.0425
.600						
.697		-.0563				
.700				-.0807		
.725			-.0416			-.0737
.750						
.808			-.0861			
.832		-.0758				
.850				-.0659		-.0407
.900			-.0876			
.920				-.0927		
.966		-.0859				

MACH (1) = 3.499 BETA (2) = -6.560 PTO = 2514.111 PO = 30.000 R/PT = 1.741 Q = 290.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5340	.6750	.7800	.8870
X/C						
.080				-.0090		.0216
.400				-.0331		
.419			-.0595			
.550				-.0411		-.0266
.600						
.697		-.0460				
.700			-.0548			
.725			-.0575			-.0746
.750						
.808			-.0737			
.832		-.0898				
.850				-.0775		-.0374
.900			-.0838			-.0921
.920				-.0921		
.966		-.0866				

DATE 13 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 878

MACH (1) = 3.498 BETA (3) = -4.360 PTO = 2314.111 PO = 30.000 R/PY = 1.741 Q = 280.444
 AWES 87-710 1A12C OF T1 S1 LOWER WING PRESSURE (LB/IN²)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .8750 .7600 .8870

X/C

.080			.0051		.0697
.400			-.0104		
.418		-.0210			
.590			-.0341		
.600					-.0055
.697	-.0107				
.700			-.0450		
.725			-.0221		-.0379
.750					
.808		-.0856			
.832	-.0881				
.850			-.0845		
.900		-.0921			-.0218
.950			-.0829		
.968	-.0858				

MACH (1) = 3.498 BETA (4) = -2.800 PTO = 2314.111 PO = 30.000 R/PY = 1.741 Q = 280.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .8750 .7600 .8870

X/C

.080			.0461		.1427
.400			.0246		
.418		.0116			
.590			-.0091		
.600					.0246
.697	.0497				
.700			-.0259		
.725			.0045		-.0321
.750					
.808		-.0346			
.832	-.0813				
.850			-.0537		-.0099
.900		-.0721			
.950			-.0705		
.968	-.0830				



DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

(LB/2105)

AMES 07-710 1A12C OF T1 S1 LOWER WING PRESSURE

MACH (1) = 3.490 BETA (S) = -.020 PTO = 2514.111 PO = 30.000 R/PT = 1.741 Q = 280.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7600 .8670

X/C

.090 .0763 .1591
 .400 .0416
 .4 .0378 .0231
 .800 .0611
 .697 .1246
 .700 .0274
 .725 .0008
 .750 .0196
 .808 .0374
 .832 -.0082
 .850 -.0360
 .900 .0097
 .950 -.0596
 .966 -.0799

MACH (1) = 3.490 BETA (S) = 2.180 PTO = 2514.111 PO = 30.000 R/PT = 1.741 Q = 280.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7600 .8670

X/C

.090 .1156 .2156
 .400 .0691
 .419 .0865
 .550 .0808
 .600 .0937
 .697 .2181
 .700 .0225
 .725 .0634
 .750 .0023
 .808 .0823
 .832 .0083
 .850 -.0213
 .900 .0260
 .950 -.0224
 .966 -.0360
 .966 -.0743

WACH (1) = 3.498 BETA (1) = 4.122 AUCS 89-110 1A120 01 71 51 LOWER WING PRESSURE (LBZ105) PO = 200.0 R/PT = 1.741 Q = 280.444

SECTION 11 (ORBITER WING) DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6750	.7950	.8870
X/C						
.090				.1529		.2082
.400				.1021		
.419		.1086				
.590			.1127			.1299
.600						
.697	.8821					
.700				.0290		
.725			.1307		.0231	
.750						
.808		.0588				
.832	.0094					
.890				.0052		.0464
.900			-.0056			
.950				-.0110		
.966	-.0845					

WACH (1) = 3.498 BETA (1) = 6.590 PTO = 2314.111 PO = 30.000 R/PT = 1.741 Q = 280.444

SECTION 11 (ORBITER WING) DEPENDENT VARIABLE CP

Y/B	.2990	.4270	.5540	.6750	.7950	.8870
X/C						
.090				.2187		.2371
.400				.1564		
.419		.0715				
.590			.1227			.1792
.600						
.697	.2135					
.700			.0487			
.725			.1531		.0822	
.750						
.808		.0824				
.832	.0666					
.890			.0140			.0779
.900			.0156			
.950				-.0033		
.966	-.0375					

1

[illegible]

Figure 1

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 84

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Figure 1

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| | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 | 2055 | 2056 | 2057 | 2058 | 2059 | 2060 | 2061 | 2062 | 2063 | 2064 | 2065 | 2066 | 2067 | 2068 | 2069 | 2070 | 2071 | 2072 | 2073 | 2074 | 2075 | 2076 | 2077 | 2078 | 2079 | 2080 | 2081 | 2082 | 2083 | 2084 | 2085 | 2086 | 2087 | 2088 | 2089 | 2090 | 2091 | 2092 | 2093 | 2094 | 2095 | 2096 | 2097 | 2098 | 2099 | 2100 | 2101 | 2102 | 2103 | 2104 | 2105 | 2106 | 2107 | 2108 | 2109 | 2110 | 2111 | 2112 | 2113 | 2114 | 2115 | 2116 | 2117 | 2118 | 2119 | 2120 | 2121 | 2122 | 2123 | 2124 | 2125 | 2126 | 2127 | 2128 | 2129 | 2130 | 2131 | 2132 | 2133 | 2134 | 2135 | 2136 | 2137 | 2138 | 2139 | 2140 | 2141 | 2142 | 2143 | 2144 | 2145 | 2146 | 2147 | 2148 | 2149 | 2150 | 2151 | 2152 | 2153 | 2154 | 2155 | 2156 | 2157 | 2158 | 2159 | 2160 | 2161 | 2162 | 2163 | 2164 | 2165 | 2166 | 2167 | 2168 | 2169 | 2170 | 2171 | 2172 | 2173 | 2174 | 2175 | 2176 | 2177 | 2178 | 2179 | 2180 | 2181 | 2182 | 2183 | 2184 | 2185 | 2186 | 2187 | 2188 | 2189 | 2190 | 2191 | 2192 | 2193 | 2194 | 2195 | 2196 | 2197 | 2198 | 2199 | 2200 | 2201 | 2202 | 2203 | 2204 | 2205 | 2206 | 2207 | 2208 | 2209 | 2210 | 2211 | 2212 | 2213 | 2214 | 2215 | 2216 | 2217 | 2218 | 2219 | 2220 | 2221 | 2222 | 2223 | 2224 | 2225 | 2226 | 2227 | 2228 | 2229 | 2230 | 2231 | 2232 | 2233 | 2234 | 2235 | 2236 | 2237 | 2238 | 2239 | 2240 | 2241 | 2242 | 2243 | 2244 | 2245 | 2246 | 2247 | 2248 | 2249 | 2250 | 2251 | 2252 | 2253 | 2254 | 2255 | 2256 | 2257 | 2258 | 2259 | 2260 | 2261 | 2262 | 2263 | 2264 | 2265 | 2266 | 2267 | 2268 | 2269 | 2270 | 2271 | 2272 | 2273 | 2274 | 2275 | 2276 | 2277 | 2278 | 2279 | 2280 | 2281 | 2282 | 2283 | 2284 | 2285 | 2286 | 2287 | 2288 | 2289 | 2290 | 2291 | 2292 | 2293 | 2294 | 2295 | 2296 | 2297 | 2298 | 2299 | 2300 | 2301 | 2302 | 2303 | 2304 | 2305 | 2306 | 2307 | 2308 | 2309 | 2310 | 2311 | 2312 | 2313 | 2314 | 2315 | 2316 | 2317 | 2318 | 2319 | 2320 | 2321 | 2322 | 2323 | 2324 | 2325 | 2326 | 2327 | 2328 | 2329 | 2330 | 2331 | 2332 | 2333 | 2334 | 2335 | 2336 | 2337 | 2338 | 2339 | 2340 | 2341 | 2342 | 2343 | 2344 | 2345 | 2346 | 2347 | 2348 | 2349 | 2350 | 2351 | 2352 | 2353 | 2354 | 2355 | 2356 | 2357 | 2358 | 2359 | 2360 | 2361 | 2362 | 2363 | 2364 | 2365 | 2366 | 2367 | 2368 | 2369 | 2370 | 2371 | 2372 | 2373 | 2374 | 2375 | 2376 | 2377 | 2378 | 2379 | 2380 | 2381 | 2382 | 2383 | 2384 | 2385 | 2386 | 2387 | 2388 | 2389 | 2390 | 2391 | 2392 | 2393 | 2394 | 2395 | 2396 | 2397 | 2398 | 2399 | 2400 | 2401 | 2402 | 2403 | 2404 | 2405 | 2406 | 2407 | 2408 | 2409 | 2410 | 2411 | 2412 | 2413 | 2414 | 2415 | 2416 | 2417 | 2418 | 2419 | 2420 | 2421 | 2422 | 2 |
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CASE 02 SEP 74 10:10 AM SOURCE DATA - 01000 WING PRESSURES

OPTIONAL

WING 116 3.499 MEAN 13.1 14.130 RWD = 2309.222 PD = 30.111 P/FT = 1.729 Q = 259.778

SECTION 110000100 WING DEPENDENT VARIABLE CP

X/R .2990 .4270 .5340 .6730 .7800 .8870

X/R
 .0300 .0594 .0758
 .450 .0156
 .419 .0325
 .590 .0366
 .657 .0063 .0190
 .750 .0454
 .725 -.0223
 .750 .0470
 .832 .0375
 .832 -.0116
 .850 .0249 .0074
 .850 -.0106
 .950 .0470
 .966

WING 111 = 3.499 PETS 141 = -2.203 RWD = 2309.222 PD = 30.111 P/FT = 1.729 Q = 259.778

SECTION 11000100 WING DEPENDENT VARIABLE CP

X/R .2990 .4270 .5340 .6730 .7800 .8870

X/R
 .0300 .0589 .1410
 .450 .0471
 .419 .0362
 .590 .0303 .0471
 .657 .0585
 .750 -.0089
 .725 .0337
 .750 -.0236
 .832 .0341
 .832 .0541
 .850 -.0301
 .850 .0034 .0334
 .950 -.0396
 .966 .0530

TABLED SOURCE DATA - (AIRCRAFT PRESSURES)

LES 82-710 (1120 OF 11 ST LOWER WING PRESSURE) (LBZ108)

WAL (1) = 3.495 BETA (P) = 4.350 PTO = 2309.222 PO = 30.111 R/P/T = 1.729 Q = 259.778

SECTION (1) OF 11 LOWER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

| X/C | | | | | |
|------|-------|--------|--|-------|--|
| .090 | | .1562 | | .2103 | |
| .470 | | .1028 | | | |
| .419 | .1174 | | | | |
| .550 | | .1168 | | .1290 | |
| .600 | | | | | |
| .697 | .2700 | | | | |
| .700 | | .0315 | | | |
| .725 | | .1359 | | .0228 | |
| .750 | | | | | |
| .808 | .0401 | | | | |
| .832 | .0299 | | | | |
| .850 | | .0120 | | .0471 | |
| .900 | | .0085 | | | |
| .950 | | -.0032 | | | |
| .966 | .0384 | | | | |

WAL (1) = 3.495 BETA (8) = 6.530 PTO = 2309.222 PO = 30.111 R/P/T = 1.729 Q = 259.778

SECTION (1) OF 11 LOWER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

| X/C | | | | | |
|------|-------|-------|-------|-------|--|
| .090 | | .2224 | | .2402 | |
| .400 | | .1823 | | | |
| .419 | .1236 | | | | |
| .550 | | .1608 | | .1823 | |
| .600 | | | | | |
| .697 | .1900 | | .0962 | | |
| .700 | | | | | |
| .725 | | .1378 | | .0670 | |
| .750 | | | | | |
| .808 | .0828 | | | | |
| .832 | .0699 | | | | |
| .850 | | .0324 | | .0769 | |
| .900 | | .0259 | | | |
| .950 | | .0123 | | | |
| .966 | .0023 | | | | |

REFERENCE DATA

3000 = 2990,0000 50,57,
 4000 = 328,0000 IN,
 5000 = 328,0000 IN,
 6000 = 400,0000 IN,
 SCALE = 0,100 SCALE

| | | |
|------|---|-----------|
| 2281 | 0 | = 393,111 |
|------|---|-----------|

SECTION / INCIDENT / WING

[illegible]

| $\lambda/\text{\AA}$ | ϵ | ϵ_{calc} | ϵ_{exp} |
|----------------------|------------|--------------------------|-------------------------|
| 0.90 | | -.0004 | .0196 |
| .400 | | -.0155 | |
| .419 | .0123 | | |
| .550 | | .0085 | |
| .600 | | | -.0245 |
| .697 | -.0106 | | |
| .700 | | -.0230 | |
| .725 | | .0192 | |
| .750 | | | -.0420 |
| .806 | .0119 | | |
| .832 | .0015 | | |
| .850 | | -.0252 | |
| .900 | | .0135 | |
| .950 | | -.0230 | |
| .966 | .0130 | | -.0521 |

DEPENDENT VARIABLE: CP

[illegible]

| | | | | | |
|----------|--------|-------|--------|--------|--------|
| χ^2 | | | | | |
| .060 | .096 | .0108 | .0573 | | |
| .400 | | .0008 | | | |
| .419 | | | | | |
| .55C | .0374 | | | | |
| .600 | | .0144 | | | |
| .697 | | | -.0199 | | |
| .700 | -.0083 | | | | |
| .725 | | | | | |
| .75C | | .0140 | -.0141 | | |
| .808 | | | | -.0266 | |
| .832 | | | | | |
| .85C | .0014 | | | | |
| .90C | | | | | |
| .95C | | .0108 | | | -.0377 |
| .966 | .0104 | | | -.0262 | |

TABULATED SOURCE DATA - INCREASING PRESSURES

AMES 87-710 TA127.11 11.50 LOWER WING PRESSURE (L92110)

MACH (1) = 3.002 BETA (3) = -4.150 PTO = 2297.222 PO = 66.000 R/PY = 2.281 Q = 593.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE C_p

| Y/B | .2990 | .4270 | .5340 | .6730 | .7800 | .8870 |
|------|-------|--------|--------|--------|--------|--------|
| X/C | | | | | | |
| .090 | | | .0903 | | .0772 | |
| .400 | | | -.0112 | | | |
| .419 | | .0137 | | | | |
| .550 | | | .0011 | | | |
| .600 | .0095 | | | | | -.0001 |
| .697 | | | | | | |
| .700 | | | | -.0403 | | |
| .725 | | | -.0141 | | | |
| .750 | | | | | -.0616 | |
| .808 | | .0126 | | | | |
| .832 | .0069 | | | | | |
| .850 | | | -.0612 | | | |
| .900 | | -.0094 | | | -.0497 | |
| .950 | | | -.0670 | | | |
| .966 | .0126 | | | | | |

MACH (1) = 3.002 BETA (4) = -2.080 PTO = 2297.222 PO = 66.000 R/PY = 2.281 Q = 593.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE C_p

| Y/B | .2990 | .4270 | .5340 | .6730 | .7800 | .8870 |
|------|--------|--------|--------|-------|--------|--------|
| X/C | | | | | | |
| .090 | | | .0990 | | .1175 | |
| .400 | | | .0284 | | | |
| .419 | | .0071 | | | | |
| .550 | | | .0071 | | | |
| .600 | | | | | .0336 | |
| .697 | .0962 | | | | | |
| .700 | | | -.0350 | | | |
| .725 | | | -.0095 | | | |
| .750 | | | | | -.0422 | |
| .808 | | -.0475 | | | | |
| .832 | -.0044 | | | | | |
| .850 | | | -.0804 | | | -.0310 |
| .900 | | | -.0705 | | -.0662 | |
| .950 | | | | | | |
| .966 | .0071 | | | | | |

DATE 03 DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

WACH (1) = 3.002 BETA (5) = .030 PTO = 2297.222 PD = 62.000 R/PY = 2.261 Q = 393.111
(0.97110)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
.090 .0932 .1648
.400 .0742
.419 .0353 .0156
.590 .0490
.600
.697 .1213
.702 -.0119
.725 -.0043
.750 -.0105
.809
.832 -.0187
.850
.890 -.0571
.900 -.0181
.950
.966 -.0342

WACH (1) = 3.002 BETA (6) = 2.120 PTO = 2297.222 PD = 62.000 R/PY = 2.261 Q = 393.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
.090 .1272 .2241
.400 .0693
.419 .0761
.590 .0664 .0728
.600
.697 .2393
.702
.725 .0141
.750 .0136
.809
.832 -.0011
.850
.890 -.0163
.900 -.0091
.950 -.0356
.966 -.0066

AVES 87-710 1A12C ON T1 S1 LOWER WING PRESSURE (LBZ110)

MACH (1) = 3.002 BETA (1) = 4.220 SPO = 2297.222 PO = 62.000 R/PT = 2.261 Q = 393.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7770 .8870

X/C

| | | | | | |
|------|--------|--------|--------|-------|-------|
| .090 | | | .1659 | | .2832 |
| .400 | | | .1016 | | |
| .419 | | .1212 | | | |
| .550 | | | .0980 | | .1116 |
| .600 | | | | | |
| .697 | .3251 | | | | |
| .700 | | | .0415 | | |
| .725 | | | | .0228 | |
| .750 | | | .1263 | | |
| .806 | .0913 | | | | |
| .832 | .0084 | | | .0028 | |
| .850 | | | | | .0107 |
| .900 | | -.0079 | | | |
| .950 | | | -.0140 | | |
| .966 | -.0206 | | | | |

MACH (1) = 3.002 BETA (1) = 6.300 PTO = 2297.222 PO = 62.000 R/PT = 2.261 Q = 393.111

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7770 .8870

X/C

| | | | | | |
|------|--------|-------|-------|-------|-------|
| .090 | | | .2219 | | .2718 |
| .400 | | | .1566 | | |
| .419 | | .2753 | | | |
| .550 | | | .2516 | | .1636 |
| .600 | | | | | |
| .697 | .1932 | | | | |
| .700 | | | .0978 | | |
| .725 | | | | .0568 | |
| .750 | | | .1929 | | |
| .806 | .0750 | | | | |
| .832 | .0636 | | | | |
| .850 | | | .0687 | | .0435 |
| .900 | | .0137 | | | |
| .950 | | .0190 | | | |
| .966 | -.0400 | | | | |

DATE 08 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.002 BETA (9) = 7.350 PTD = 2297.222 PO = 62.000 R/PT = 2.261 Q = 393.111
 AWE3 87-710 1A12C 01 T1 S3 LOWER WING PRESSURE (0.92110)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/C | .2990 | .4270 | .5540 | .6730 | .7900 | .9070 |
|------|--------|-------|-------|-------|-------|-------|
| X/C | | | | | | |
| .090 | | | | .2549 | | .2967 |
| .400 | | | | .1732 | | |
| .419 | | .2115 | | | | |
| .550 | | | .2626 | | | .1635 |
| .600 | | | | | | |
| .697 | .4008 | | | .0665 | | |
| .700 | | | | | | |
| .725 | | | .1949 | | | |
| .750 | | | | | .0732 | |
| .808 | | .0761 | | | | |
| .832 | .0266 | | | .0622 | | .0524 |
| .850 | | | | | | |
| .900 | | | .0335 | | .0563 | |
| .950 | | | | | | |
| .966 | -.0459 | | | | | |



TABULATED SOURCE DATA - TABULATED PRESSURES

(LBZ111) (12 APR 74)

AVES 87-710 1120 01 71 33 7-LEP WING PRESSURE

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
 C_L = 25.500 S_WPR = .028
 C_D = 1.000 RUDDER = .000

REFERENCE DATA

SWR = 8550.0000 50.0 FT. WPR = 553.0000 IN.
 LWR = 1326.0000 IN. WPR = .0700 IN.
 BWR = 1326.0000 IN. WPR = 400.0000 IN.
 SCALE = .0190 SCALE

WCH (1) = 3.499 BETA (1) = -7.970 PTO = 2514.667 PO = 30.222 R/PT = 1.777 Q = 260.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5340 | .6170 | .7400 | .8870 |
|------|-------|-------|-------|-------|-------|-------|
| X/C | | | | | | |
| .090 | | | | .0220 | | .0162 |
| .400 | | | | .0295 | | |
| .419 | | .0253 | | | | |
| .590 | | | .0304 | | | .0010 |
| .600 | | | | | | |
| .697 | .0166 | | | | | |
| .730 | | | .0204 | | | |
| .725 | | .0536 | | | | |
| .750 | | | | .0046 | | |
| .808 | | .0222 | | | | |
| .832 | .0199 | | | | | |
| .890 | | | .0225 | | | .0116 |
| .900 | | .0256 | | | | |
| .950 | | .0162 | | | | |
| .966 | .0356 | | | | | |

WCH (1) = 3.499 BETA (2) = -8.970 PTO = 2514.667 PO = 30.222 R/PT = 1.777 Q = 260.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5340 | .6170 | .7400 | .8870 |
|------|-------|-------|-------|-------|-------|-------|
| X/C | | | | | | |
| .090 | | | | .0516 | | .0854 |
| .400 | | | | .0260 | | |
| .419 | | .0208 | | | | |
| .590 | | | .0261 | | | .0036 |
| .600 | | | | | | |
| .697 | .0196 | | | .0166 | | |
| .730 | | .0495 | | | | |
| .725 | | | | | | |
| .750 | | | | | | |
| .808 | | .0256 | | | | |
| .832 | .0160 | | | | | |
| .890 | | | .0123 | | | .0003 |
| .900 | | .0242 | | | | |
| .950 | | .0074 | | | | |
| .966 | .0244 | | | | | |

DATE 08 DEC 74 TABULATED SOURCE DATA - (AIRC WING PRESSURES)

AMES 87-710 (AIRC OF T1 S3 LOWER WING PRESSURE (LBZ111))

MACH (1) = 3.499 BETA (3) = -4.390 PTO = 2314.887 PO = 30.222 R/PT = 1.777 Q = 200.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

| | | |
|-------|--------|--------|
| .080 | .0793 | .0912 |
| .400 | .0159 | |
| .419 | | |
| .590 | .0232 | .0150 |
| .800 | | .0206 |
| .897 | .0177 | |
| .700 | | |
| .723 | | |
| .190 | .0237 | -.0166 |
| .406 | | -.0367 |
| .432 | .0366 | |
| .890 | | |
| .900 | .0086 | -.0266 |
| .990 | | -.0060 |
| .996 | -.0307 | |
| .0330 | | |

MACH (1) = 3.499 BETA (4) = -2.200 PTO = 2314.887 PO = 30.222 R/PT = 1.777 Q = 200.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

| | | |
|-------|--------|--------|
| .080 | .1002 | .1461 |
| .400 | .0265 | |
| .419 | | |
| .590 | .0366 | .0224 |
| .800 | | .0314 |
| .897 | .0378 | |
| .700 | | |
| .723 | | |
| .750 | .0240 | -.0078 |
| .406 | | -.0200 |
| .432 | .0192 | |
| .890 | | |
| .900 | .0502 | -.0346 |
| .990 | | .0078 |
| .996 | -.0103 | -.0314 |
| .0361 | | |

TABLED SOURCE DATA - LAKE AND RESERVOIRS

REF: A7-710 1A12 1 3 1000 WING PRESSURE (092111)

MACRO (1) = 3.490 BETA (5) = -.020
RHO = 30.222 R/PT = 1.777 Q = 260.444

FROM THE

| DATE | 2500 | 4270 | 5340 | 6750 | 7620 | 8075 |
|------|-------|--------|--------|--------|-------|-------|
| K/C | | | | | | |
| .030 | | | | .0857 | | .1442 |
| .400 | | | | .0501 | | |
| .419 | | .0883 | | | | |
| .930 | | | .0443 | | | .0667 |
| .600 | | | | | | |
| .697 | .0482 | | | | | |
| .P01 | | | | .0214 | | |
| .723 | | | .0296 | | | |
| .750 | | | | | .0109 | |
| .P06 | | -.0083 | | | | |
| .P32 | .0331 | | | | | |
| .850 | | | | -.0226 | | .0216 |
| .900 | | | -.0411 | | | |
| .950 | | | | -.0467 | | |
| .966 | | .0410 | | | | |

SECTION / JOB / PER / MIN

| | Y/A | .8990 | .4273 | .5346 | .6750 | .7600 | .8675 |
|-----|------|-------|-------|--------|--------|-------|-------|
| X/C | | | | | | | |
| | .030 | | | | | | .2147 |
| | .400 | | | | .1164 | | |
| | .419 | | | | .0799 | | |
| | .990 | | .0656 | | | | |
| | .800 | | .0732 | | | | .0977 |
| | .697 | .1643 | | | | | |
| | .700 | | | | .0362 | | |
| | .729 | | .0745 | | | | |
| | .790 | | | | | .0081 | |
| | .808 | | .0275 | | | | |
| | .832 | .0210 | | | | | |
| | .890 | | | | -.0126 | | .0305 |
| | .900 | | | -.0096 | | | |
| | .950 | | | | -.0373 | | |
| | .966 | .0166 | | | | | |

DATE 05 DEC 74

TABULATED SOURCE (ATA - TA12C WING PRESSURE)

PAGE 893

MACH (1) = 3.499 BETA (7) = 4.350 PTD = 2314.667 PO = 30.222 R/PT = 1.777 Q = 260.444

MACH (1) = 3.499 BETA (7) = 4.350 PTD = 2314.667 PO = 30.222 R/PT = 1.777 Q = 260.444

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

| | | |
|------|--------|-------|
| .080 | .1630 | .2174 |
| .400 | .0569 | |
| .419 | .1436 | |
| .530 | .1028 | |
| .600 | | .1260 |
| .697 | .1828 | |
| .700 | | .0379 |
| .723 | .1126 | .0275 |
| .750 | | |
| .806 | .0523 | |
| .832 | .0540 | .0054 |
| .850 | | |
| .900 | .0038 | .0497 |
| .950 | -.0141 | |
| .966 | -.0075 | |

MACH (1) = 3.499 BETA (8) = 6.540 PTD = 2314.667 PO = 30.222 R/PT = 1.777 Q = 260.444

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

| | | |
|------|--------|-------|
| .050 | .2236 | .2416 |
| .400 | .1621 | |
| .419 | .1159 | |
| .530 | .1623 | |
| .600 | | .1831 |
| .697 | .2070 | |
| .700 | | .0591 |
| .723 | .1612 | .0710 |
| .750 | | |
| .806 | .0872 | |
| .832 | .0933 | |
| .850 | | .0321 |
| .900 | .0266 | .0629 |
| .950 | .0158 | |
| .966 | -.0047 | |



DATE 08 DEC 74
 MAGNETIC SOURCE DATA (CALCULATED PRESSURES)
 082113 (12 APR 74)

WING 87-110 (AIRCRAFT 71 SS LOWER WING PRESSURE)

REFERENCE DATA
 XREF = 2000.0000 IN. XREF = 993.0000 IN.
 YREF = 1328.0000 IN. YREF = 1000.0000 IN.
 ZREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = 1.0000 SCALE

PARAMETRIC DATA
 ALPHA = .000 POWER = 1.000
 CTR = 25.000 SHAPER = .826
 GIMBAL = 1.000 RUDDER = 1.000

MACH (1) = 3.459 BETA (1) = -7.660 PTO = 2317.667 PO = 30.222 P/PT = 1.766 Q = 260.778

DEPENDENT VARIABLE CP

SECTION (1) LOWER WING

Y/B .2895 .4270 .5340 .6730 .7900 .8870

X/C
 .050 .0242 .0215
 .400 .0322
 .419 .0223 .0283 .0049
 .550 .0215
 .600 .0215
 .637 .0215
 .700 .0215
 .725 .0215
 .750 .0215
 .806 .0215
 .832 .0215
 .850 .0215
 .900 .0215
 .950 .0215
 .966 .0215

DEPENDENT VARIABLE CP

SECTION (1) UPPER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C
 .090 .0326 .0662
 .400 .0326
 .419 .0213 .0092
 .550 .0290
 .600 .0187 .0190
 .697 .0514
 .750 .0215
 .750 .0215
 .806 .0215
 .832 .0163
 .850 .0272 .0053
 .900 .0106
 .950 .0297
 .966 .0297



DATE 05 DEC 74 CALCULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.499 BETA (5) = -.010 PTO = 2317.667 PO = 30.222 R/PT = 1.766 Q = 260.776
 ARES 87-710 1A12C Q1 T1 S3 LOWER WING PRESSURE (LB2113)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5340 | .730 | .7800 | .8870 |
|------|-------|--------|--------|-------|-------|-------|
| X/C | | | | | | |
| .090 | | | | .0865 | | .1668 |
| .400 | | | | .0849 | | |
| .419 | | .0859 | | | | |
| .550 | | | .0403 | | | |
| .600 | | | | | | .0692 |
| .697 | .0479 | | | | | |
| .700 | | | .0221 | | | |
| .725 | | | .0251 | | | |
| .750 | | | | .0081 | | |
| .806 | | -.0086 | | | | |
| .832 | .0213 | | | | | |
| .850 | | | -.0217 | | | .0221 |
| .900 | | -.0395 | | | | |
| .950 | | | -.0487 | | | |
| .966 | .0322 | | | | | |

MACH (1) = 3.499 BETA (6) = 2.170 PTO = 2317.667 PO = 30.222 R/PT = 1.766 Q = 260.776

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5340 | .6750 | .7800 | .8870 |
|------|-------|--------|--------|-------|-------|-------|
| X/C | | | | | | |
| .090 | | | | .1175 | | .2169 |
| .400 | | | | .0791 | | |
| .419 | | .0919 | | | | |
| .550 | | | .0702 | | | |
| .600 | | | | | | .1006 |
| .697 | .1668 | | | | | |
| .700 | | | .0390 | | | |
| .725 | | | .0729 | | | |
| .750 | | | | .0064 | | |
| .806 | | .0262 | | | | |
| .832 | .0159 | | | | | |
| .850 | | | -.0097 | | | .0324 |
| .900 | | -.0085 | | | | |
| .950 | | | -.0352 | | | |
| .966 | .0104 | | | | | |

DATE TO DEC 1968 TABULATED SOURCE DATA - (A120000) (A120000) (A120000)

(LBZ113)

AVG 80-710 (A120000) 83 (A120000) 83 (A120000) 83

MACH (1) = 3.499 BETA (7) = 0.000 PO = 2317.687 PO = 50.229 R/FT = 1.768 Q = 260.778

SECTION (1) ORBITER WING

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .154 .154 .154 .154 .154
 .400 .1246 .1154 .1253 .1211 .1211
 .419 .1246 .1154 .1253 .1211 .1211
 .550 .1246 .1154 .1253 .1211 .1211
 .600 .1246 .1154 .1253 .1211 .1211
 .657 .1246 .1154 .1253 .1211 .1211
 .700 .1246 .1154 .1253 .1211 .1211
 .725 .1246 .1154 .1253 .1211 .1211
 .750 .1246 .1154 .1253 .1211 .1211
 .806 .1246 .1154 .1253 .1211 .1211
 .832 .1246 .1154 .1253 .1211 .1211
 .850 .1246 .1154 .1253 .1211 .1211
 .900 .1246 .1154 .1253 .1211 .1211
 .950 .1246 .1154 .1253 .1211 .1211
 .966 .1246 .1154 .1253 .1211 .1211

MACH (1) = 3.499 BETA (8) = 0.000 PTO = 2317.687 PO = 50.229 R/FT = 1.768 Q = 260.778

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .2215 .2215 .2215 .2215 .2215
 .400 .1600 .1600 .1600 .1600 .1600
 .419 .1099 .1099 .1099 .1099 .1099
 .550 .1604 .1604 .1604 .1604 .1604
 .600 .1773 .1773 .1773 .1773 .1773
 .657 .2026 .2026 .2026 .2026 .2026
 .700 .0574 .0574 .0574 .0574 .0574
 .725 .1615 .1615 .1615 .1615 .1615
 .750 .0690 .0690 .0690 .0690 .0690
 .806 .0617 .0617 .0617 .0617 .0617
 .832 .0676 .0676 .0676 .0676 .0676
 .850 .0299 .0299 .0299 .0299 .0299
 .900 .0250 .0250 .0250 .0250 .0250
 .950 .0105 .0105 .0105 .0105 .0105
 .966 -.0137 -.0137 -.0137 -.0137 -.0137

DATE 08 DEC 74 TABULATED SOURCE DATA - (AIRCRAFT PRESSURES)

WACH (1) = 3.450 BETA (9) = 7.630 PPO = 2317.667 PQ = 30.222 R/T = 1.766 Q = 290.778
 (LBZ113)

SECTION (1) DERIVATIVE WING DEPENDENT VARIABLE CP

| Y/B | .2650 | .4270 | .5340 | .6730 | .7800 | .8870 |
|------|--------|-------|-------|-------|-------|-------|
| X/C | | | | | | |
| .050 | | | | .2599 | | .2616 |
| .400 | | | | .1752 | | |
| .419 | | .1837 | | | | |
| .530 | | | .1986 | | | .1999 |
| .600 | | | | | | |
| .697 | .1646 | | | .0782 | | |
| .750 | | | .1763 | | | |
| .750 | | | | | .0810 | |
| .806 | | .0978 | | | | |
| .832 | .1063 | | | .0467 | | .0913 |
| .850 | | | .0347 | | | |
| .900 | | | | .0246 | | |
| .950 | | | | | | |
| .966 | -.0119 | | | | | |



DATE 03 DEC 74

TABULATED SOURCE DATA - (A120 WING PRESSURES)

PAGE 901

AWE 87-710 A120 Q1 T1 S2 LOWER WING PRESSURE (LBZ115)

WACH (1) = 3.002 BETA (3) = -4.150 PTO = 2298.869 PO = 62.000 P/PT = 2.292 Q = 393.000

SECTION 1102B1TER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

| | | | | | |
|------|--------|--------|--------|--------|--------|
| .050 | | | .0295 | | .0733 |
| .400 | | | -.0078 | | |
| .419 | | -.0126 | | | |
| .550 | | | -.0230 | | .0033 |
| .600 | | | | | |
| .697 | .0112 | | | | |
| .700 | | | -.0540 | | |
| .725 | | -.0317 | | | |
| .750 | | | | -.0823 | |
| .806 | | -.0807 | | | |
| .832 | -.0690 | | -.0712 | | -.0433 |
| .890 | | -.0999 | -.0920 | | |
| .930 | | | | | |
| .966 | -.0985 | | | | |

WACH (1) = 3.002 BETA (4) = -2.060 PTO = 2298.869 PO = 62.000 P/PT = 2.292 Q = 393.000

SECTION 1102B1TER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

| | | | | | |
|------|--------|--------|--------|--------|--------|
| .050 | | | .0950 | | .1246 |
| .400 | | | .0310 | | |
| .419 | | -.0086 | | | |
| .550 | | | -.0844 | | .0242 |
| .600 | | | | | |
| .697 | .0743 | | | | |
| .700 | | | -.0371 | | |
| .725 | | -.0143 | | | |
| .750 | | | | -.0353 | |
| .806 | | -.0804 | | | |
| .832 | -.0479 | | -.0878 | | -.0262 |
| .890 | | -.0641 | | | |
| .930 | | | -.0846 | | |
| .966 | -.1082 | | | | |

DATE 10/10/70 VARIABLE 97% DATA - 14.70 (10.70 - 20.00) (LBZ115)
 AREA 97-710 14.70 (10.70 - 20.00) R/T = 2.292 0 = 393.000

SECTION 11. BELIEVED WING

Y/B .2950 .4270 .5340 .6730 .7800 .8970

X/C
 .050 .0249 .175
 .400 .0547
 .419 .0217 .0127
 .550 .0107
 .600 .0092
 .697 .0161
 .700 .0177
 .725 .0107
 .750 .0092
 .806 .0161
 .812 .0177
 .840 .0107
 .890 .0092
 .900 .0161
 .940 .0177
 .966 .0107

MACH (1) = 3.002 BETA (6) = 2.130 DTC = 2296.699 RD = 62.000 7/FT = 2.212 0 = 393.000

SECTION 11. BELIEVED WING

Y/B .2950 .4270 .5340 .6730 .7800 .8970

X/C
 .050 .1256 .2242
 .400 .0686
 .419 .0584 .0440 .0794
 .550 .0145
 .600 .0145
 .697 .0145
 .700 .0145
 .725 .0145
 .750 .0145
 .806 .0145
 .812 .0145
 .840 .0145
 .890 .0145
 .900 .0145
 .940 .0145
 .966 .0145



DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES)

MACH (1) = 3.002 BETA (7) = 4.210 PTO = 2298.889 PO = 62.000 R/PT = 2.292 Q = 393.000
 AMES 87-710 1A12C 01 T1 S2 LOWER WING PRESSURE (0.82119)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5340 | .6750 | .7600 | .8870 |
|------|--------|--------|-------|-------|-------|-------|
| X/C | | | | | | |
| .090 | | | .1910 | | .2720 | |
| .400 | | | .1103 | | | |
| .419 | | .1039 | | | | |
| .590 | | .1096 | | | | .1218 |
| .800 | | | | | | |
| .897 | .1561 | | | | | |
| .700 | | | .0486 | | | |
| .725 | | .1183 | | .0357 | | |
| .750 | | | | | | |
| .806 | | .0448 | | | | |
| .832 | .0648 | | .0131 | | | |
| .850 | | | | | .0202 | |
| .900 | | -.0074 | | | | |
| .950 | | -.0045 | | | | |
| .966 | -.0767 | | | | | |

MACH (1) = 3.002 BETA (8) = 6.300 PTO = 2298.889 PO = 62.000 R/PT = 2.292 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5340 | .6750 | .7600 | .8870 |
|------|--------|-------|-------|-------|-------|-------|
| X/C | | | | | | |
| .090 | | | .2231 | | .2651 | |
| .400 | | | .1575 | | | |
| .419 | | .1823 | | | | |
| .590 | | .2100 | | | | .1843 |
| .800 | | | | | | |
| .897 | .3556 | | | | | |
| .700 | | | .0718 | | | |
| .725 | | .1773 | | .0843 | | |
| .750 | | | | | | |
| .806 | | .0841 | | | | |
| .832 | .0478 | | | | | |
| .850 | | | .0868 | | | .0471 |
| .900 | | .0264 | | | | |
| .950 | | .0277 | | | | |
| .966 | -.0731 | | | | | |

AMES 87-710 1A12C 01 71 52 LOWER WING PRESSURE (LBZ116) (12 APR 74)

REFERENCE DATA

9827 = 8980,000 50. F. 2498 = 953,000 IN.
 9828 = 1328,000 IN. 2499 = .0000 IN.
 9829 = 1328,000 IN. 2500 = 400,000 IN.
 SCALE = .0180 SCALE

PARAMETRIC DATA

| | | | |
|----------|--------|----------|-------|
| ALPHA = | .000 | POWER = | 1.000 |
| OPR = | 25.000 | SRPR = | .768 |
| G1MEAL = | 1.000 | RUDDER = | .000 |

$$\chi^2_{\text{min}}(1) = 3.002 \quad \text{BETA}(1) = -7.290 \quad \text{PTO} = 2292.869 \quad \text{PO} = 62,000 \quad \text{R/PT} = 2.266 \quad Q = 392,444$$
SECTION, 11081174, WING
DEPENDENT VARIABLE OF[illegible][illegible]

| | | | | | | | | | | | |
|------------|-------|------------|--------|-------|----------|------|--------|-------|-------|-----|---------|
| WACH (1) = | 5.002 | BETA (2) = | -8.240 | PTO = | 2232.889 | PO = | 62.000 | R/Y = | 2.908 | Q = | 392.444 |
|------------|-------|------------|--------|-------|----------|------|--------|-------|-------|-----|---------|

SECTION (110) PER WING

[illegible]

AMES 07-710 (A120 ON T1 52 LOWER WING PRESSURE) (LBZ116)

WACH (1) = 3.002 BETA (3) = -4.192 PTO = 2292.805 PC = 21.000 R/PY = 2.266 Q = 392.444

SECTION 11000100 WING

DEPENDENT VARIABLE PC

Y/B .2990 .4270 .5340 .6737 .7630 .8870

X/C

| | | | | | |
|------|-------|-------|--------|--------|--------|
| .090 | | | .0430 | | .0744 |
| .400 | | | -.0041 | | |
| .419 | | .0226 | | | |
| .550 | | | .0186 | | |
| .600 | | | | | .0070 |
| .697 | .0401 | | | | |
| .700 | | | -.0184 | | |
| .725 | | .0221 | | | |
| .750 | | | | -.0543 | |
| .805 | | .0262 | | | |
| .832 | .0300 | | | | |
| .890 | | | -.0385 | | |
| .900 | | .0121 | | | -.0472 |
| .950 | | | -.0316 | | |
| .966 | .0366 | | | | |

WACH (1) = 3.002 BETA (4) = -2.080 PTO = 2292.805 PC = 21.000 R/PY = 2.266 Q = 392.444

SECTION 11000100 WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8870

X/C

| | | | | | |
|------|-------|--------|--------|--------|--------|
| .090 | | | .1051 | | .1279 |
| .400 | | | .0350 | | |
| .419 | | .1270 | | | |
| .550 | | | .0216 | | |
| .600 | | | | | .0432 |
| .697 | .0565 | | | | |
| .700 | | | -.0197 | | |
| .725 | | -.0051 | | | |
| .750 | | | | -.0319 | |
| .805 | | .0010 | | | |
| .832 | .0357 | | | | |
| .890 | | | -.0306 | | |
| .900 | | -.0247 | | | -.0240 |
| .950 | | | -.0736 | | |
| .966 | .0497 | | | | |

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

AMES 87-710 1A12C 01 T1 S2 LOWER WING PRESSURE (LBZ116)

MACH (1) = 3.002 BETA (5) = .030 PTO = 2292.889 PO = 62.000 R/PT = 2.266 Q = 392.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

| | | |
|------|--------|-------|
| .050 | .1003 | .1732 |
| .400 | .0725 | |
| .419 | .0386 | |
| .550 | .0122 | .0602 |
| .600 | | |
| .697 | .0999 | |
| .700 | | |
| .725 | .0126 | |
| .750 | | |
| .806 | -.0189 | |
| .832 | .0000 | |
| .850 | -.0514 | |
| .900 | -.0499 | |
| .950 | -.0682 | |
| .966 | .0303 | |

MACH (1) = 3.002 BETA (6) = 2.120 PTO = 2292.889 PO = 62.000 R/PT = 2.266 Q = 392.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

| | | |
|------|--------|-------|
| .050 | .1281 | .2251 |
| .400 | .0879 | |
| .419 | .0791 | |
| .550 | .0924 | |
| .600 | | .0795 |
| .697 | .2474 | |
| .700 | | |
| .725 | .0224 | |
| .750 | .0845 | .0184 |
| .806 | .0105 | |
| .832 | -.0036 | |
| .850 | -.0185 | |
| .900 | -.0261 | |
| .950 | -.0340 | |
| .966 | .0314 | |

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 908

MACH (1) = 3.002 BETA (7) = 4.210 PTO = 2292.889 PO = 62.000 R/PT = 2.266 Q = 392.444
 (LBZ116)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5540 | .6730 | .7800 | .8870 |
|------|--------|-------|-------|--------|-------|-------|
| X/C | | | | | | |
| .050 | | | | .1906 | | .2683 |
| .400 | | | | .1086 | | |
| .419 | | .1014 | | | | |
| .590 | | | .0884 | | | |
| .600 | | | | | | .1212 |
| .697 | .1943 | | | | | |
| .700 | | | | .0467 | | |
| .725 | | | .1208 | | | |
| .750 | | | | | .0346 | |
| .806 | | .0546 | | | | |
| .832 | .0845 | | | .0042 | | |
| .850 | | | .0025 | | .0186 | |
| .900 | | | | | | |
| .950 | | | | | | |
| .966 | -.0182 | | | -.0091 | | |

MACH (1) = 3.002 BETA (8) = 6.310 PTO = 2292.889 PO = 62.000 R/PT = 2.266 Q = 392.444

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5540 | .6730 | .7800 | .8870 |
|------|--------|-------|-------|-------|-------|-------|
| X/C | | | | | | |
| .050 | | | | .2215 | | .2638 |
| .400 | | | | .1994 | | |
| .415 | | .1990 | | | | |
| .590 | | | .2224 | | | .1633 |
| .600 | | | | | | |
| .697 | .3355 | | | | | |
| .700 | | | | .0762 | | |
| .725 | | | .1791 | | | |
| .750 | | | | | .0642 | |
| .806 | | .0633 | | | | |
| .832 | .0424 | | | | | |
| .850 | | | | .0739 | | .0470 |
| .900 | | | .0305 | | | |
| .950 | | | | .0297 | | |
| .966 | -.0266 | | | | | |

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.002 BETA (9) = 7.330 PTO = 2292.889 PO = 62.000 R/T = 2.266 0 = 392.444
 (LBZ116)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .8990 | .4270 | .5340 | .6730 | .7800 | .8870 |
|------|--------|-------|-------|-------|-------|-------|
| X/C | | | | | | |
| .050 | | | | .2461 | | .2878 |
| .400 | | | | .1794 | | |
| .419 | | .2051 | | | | |
| .590 | | | .2527 | | | |
| .600 | | | | | | .1867 |
| .697 | .3995 | | | .0982 | | |
| .700 | | | | | | |
| .725 | | | .2015 | | .0801 | |
| .750 | | | | | | |
| .806 | | .0763 | | | | |
| .832 | .0669 | | | | | |
| .850 | | | .0941 | | | .0579 |
| .900 | | | .0439 | | | |
| .950 | | | .0425 | | | |
| .966 | -.0309 | | | | | |

DATE 09 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 910

AVES 87-710 1A12C 01 71 S2 LOWER WING PRESSURE (LBZ119) (12 APR 74)

REFERENCE DATA

REF = 2990.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 BREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = .000
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.499 BETA (1) = -7.660 PTO = 2501.956 PO = 30.000 R/PT = 1.756 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6730 .7800 .8870

X/C
 .090
 .400
 .419
 .550
 .800
 .697
 .700
 .725
 .750
 .806
 .832
 .850
 .900
 .950
 .966
 .0099
 .0303
 .0304
 .0402
 .0391
 .0518
 .0336
 .0821
 .0809
 .0793
 .0793
 .0549
 .0233
 .0303
 .0402
 .0229
 .0518
 .0336
 .0821
 .0809
 .0793
 .0793
 .0549

MACH (1) = 3.499 BETA (2) = -6.560 PTO = 2501.956 PO = 30.000 R/PT = 1.756 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6730 .7800 .8870

X/C
 .090
 .400
 .419
 .550
 .800
 .697
 .700
 .725
 .750
 .806
 .832
 .850
 .900
 .950
 .966
 .0006
 .0216
 .0296
 .0363
 .0306
 .0447
 .0287
 .0873
 .0870
 .0646
 .0612
 .0806
 .0346
 .0169
 .0826
 .0646
 .0612
 .0806

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 911

AMES 87-710 1A12C 01 T1 S2 LOWER WING PRESSURE (LBZ119)

MACH (1) = 3.499 BETA (3) = -4.380 PTO = 2301.556 PO = 30.000 R/FT = 1.756 Q = 259.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5540 | .6730 | .7800 | .8870 |
|------|-------|-------|-------|-------|-------|-------|
| X/C | | | | | | |
| .050 | | | | .0157 | | .0697 |
| .400 | | | | .0085 | | |
| .419 | | | | | | |
| .550 | | | | | | |
| .600 | | | | | | |
| .697 | | | | | | |
| .700 | | | | | | |
| .725 | | | | | | |
| .750 | | | | | | |
| .806 | | | | | | |
| .832 | | | | | | |
| .850 | | | | | | |
| .900 | | | | | | |
| .950 | | | | | | |
| .966 | | | | | | |

MACH (1) = 3.499 BETA (4) = -2.200 PTO = 2301.556 PO = 30.000 R/FT = 1.756 Q = 259.000

SECTION (1) ORBITER WING

DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5540 | .6730 | .7800 | .8870 |
|------|-------|-------|-------|-------|-------|-------|
| X/C | | | | | | |
| .050 | | | | .0750 | | .1470 |
| .400 | | | | .0376 | | |
| .419 | | | | | | |
| .550 | | | | | | |
| .600 | | | | | | |
| .697 | | | | | | |
| .700 | | | | | | |
| .725 | | | | | | |
| .750 | | | | | | |
| .806 | | | | | | |
| .832 | | | | | | |
| .850 | | | | | | |
| .900 | | | | | | |
| .950 | | | | | | |
| .966 | | | | | | |

DATE 05 DEC 74 TABULATED SOURCE DATA - IA12C WING PRESSURES

MACH (1) = 3.499 BETA (5) = -.020 PTO = 2301.554 PO = 30.000 R/PT = 1.756 Q = 259.000
 ANES 67-710 IA12C OF T1 S2 LOWER WING PRESSURE (LBZ119)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

| X/C | | | | | |
|------|--------|--------|--------|-------|--------|
| .050 | | | .0860 | | .1769 |
| .400 | | | .0734 | | |
| .419 | | .0419 | | | |
| .550 | | .0238 | | | |
| .600 | | | | | .0740 |
| .697 | .1377 | | | | |
| .700 | | | .0120 | | |
| .725 | | .0375 | | | |
| .750 | | | | | -.0098 |
| .808 | .0085 | | | | |
| .832 | .0036 | | | | |
| .850 | | | -.0294 | | |
| .900 | | -.0387 | | .0214 | |
| .950 | | | -.0523 | | |
| .966 | -.0669 | | | | |

MACH (1) = 3.499 BETA (6) = 2.170 PTO = 2301.556 PO = 30.000 R/PT = 1.756 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

| X/C | | | | | |
|------|--------|--------|--------|-------|-------|
| .050 | | | .1051 | | .2248 |
| .400 | | | .0779 | | |
| .419 | | .0752 | | | |
| .550 | | .0643 | | | |
| .600 | | | | | .1050 |
| .697 | .2066 | | | | |
| .700 | | | .0283 | | |
| .725 | | .0634 | | | |
| .750 | | | | | .0081 |
| .808 | .0342 | | | | |
| .832 | .0097 | | | | |
| .850 | | | -.0136 | | |
| .900 | | -.0207 | | .0397 | |
| .950 | | | -.0332 | | |
| .966 | -.0615 | | | | |



DATE 08 DEC 74 TABULATED SOURCE DATA - (A12C WING PRESSURES)

AVES 87-710 (A12C 01 T1 S2 LOWER WING PRESSURE) (L92119)

WACH (1) = 3.499 BETA (7) = 4.350 PTO = 2301.596 PO = 30.000 R/PY = 1.756 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .1545 .2312
 .400 .1092
 .419 .1402
 .590 .1014
 .600 .1403
 .697 .1714
 .700 .0433
 .725 .1189 .0402
 .750
 .808 .0921
 .832 .0881
 .890 .0097 .0642
 .900 -.0033
 .950 -.0109
 .966 -.0413

WACH (1) = 3.499 BETA (8) = 6.540 PTO = 2301.596 PO = 30.000 R/PY = 1.756 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .2194 .2602
 .400 .1671
 .419 .1234
 .590 .1627 .1883
 .600 .2463
 .697 .0702
 .700 .1775 .0791
 .725 .0687
 .750 .0799
 .808 .0403 .0654
 .832 .0354 .0228
 .890 .0374
 .900
 .950
 .966

DATE: 11/24/71

EXPLAINED SOURCE DATA - 11200000 PRESSURES

0.5711

1475 0.1110 1120 0.11 12 OVER WING PRESSURE

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

WING AREA: 19.12

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0.5711

WING AREA: 19.12

WING AREA: 19.12

0.5711

AMES 87-710 1A12C OI T1 S2 LOWER WING PRESSURE (LB/IN²) (12 APR 74)

REFERENCE DATA

9007 = 2000.0000 SQ.FT. X_{REF} = 993.0000 IN.
 L_{REF} = 1326.0000 IN. Y_{REF} = .0000 IN.
 B_{REF} = 1326.0000 IN. Z_{REF} = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
 CPR = 23.860 SHPR = .826
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.499 BETA (1) = -7.660 PTO = 2306.556 PO = 30.000 R/PY = 1.744 Q = 259.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8670

X/C

.050 .0422 .0440
 .400 .0498
 .419 .0396
 .550 .0416
 .600 .0326
 .697 .0346
 .700 .0422
 .725 .0717
 .750 .0296
 .806 .0416
 .832 .0319
 .850 .0461
 .900 .0444
 .950 .0445
 .966 .0359
 .0576

MACH (1) = 3.499 BETA (2) = -6.570 PTO = 2306.556 PO = 30.000 R/PY = 1.744 Q = 259.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8670

X/C

.050 .0450 .0623
 .400 .0482
 .419 .0417
 .550 .0461
 .600 .0265
 .697 .0319
 .700 .0366
 .725 .0760
 .750 .0195
 .806 .0461
 .832 .0417
 .850 .0406
 .900 .0465
 .950 .0352
 .966 .0227
 .0680

DATE 05 DEC 74

ADJUSTED SOURCE DATA (ADJUSTING PRESSURE)

8.00

MEAN 27-710 (1120 ON 11 50 OVER WIND PRESSURE

0.102

WIND (1) = 3.499 BETA (2) = -4.365 PPO = 2308.556 PO = 30.000 P/PT = 1.744 Q = 259.556

SECTION 1 (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .0681 .0946
.400 .0329
.419 .0395
.550 .0619 .0345
.600
.697 .0399
.700 .0221
.725 .0828 -.0001
.750
.806 .0962
.822 .0550
.850 .0010
.900 .0313 .0125
.950 -.0055
.966 .0524

WIND (1) = 3.499 BETA (4) = -2.200 PPO = 2308.556 PO = 30.000 P/PT = 1.744 Q = 259.556

SECTION 1 (1) ORBITER WING

DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.090 .1280 .1460
.400 .0566
.419 .0946
.550 .0499 .0842
.600
.697 .0843
.700 .0095
.725 .0513
.750
.806 .0480
.822 .0719
.850 .0144
.900 .0144 .0193
.950 -.0272
.966 .0839



DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 917

AMES 87-710 1A12C OL T1 SE LOWER WING PRESSURE (L9Z120)

MACH (1) = 3.499 BETA (5) = -.010 PTO = 2308.556 PO = 30.000 R/PT = 1.744 Q = 239.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5340 | .6750 | .7600 | .8870 |
|------|-------|--------|-------|--------|-------|-------|
| X/C | | | | | | |
| .050 | | | | .0666 | | .1820 |
| .400 | | | | .1072 | | |
| .419 | | .0753 | | | | |
| .590 | | | .0465 | | | .0605 |
| .600 | | | | | | |
| .697 | .0463 | | | | | |
| .700 | | | | .0323 | | |
| .725 | | | .0346 | | .0222 | |
| .750 | | .0075 | | | | |
| .808 | | | | | | |
| .832 | .0560 | | | | | |
| .850 | | | | -.0156 | | .0309 |
| .900 | | -.0290 | | | | |
| .950 | | | | -.0366 | | |
| .966 | .0817 | | | | | |

MACH (1) = 3.499 BETA (6) = 2.17 PTO = 2308.556 PO = 30.000 R/PT = 1.744 Q = 239.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5340 | .6750 | .7600 | .8870 |
|------|-------|--------|-------|--------|-------|-------|
| X/C | | | | | | |
| .050 | | | | .1109 | | .2261 |
| .400 | | | | .0874 | | |
| .419 | | .1045 | | | | |
| .590 | | | .0749 | | | .1060 |
| .600 | | | | | | |
| .697 | .1437 | | | | | |
| .700 | | | .0513 | | | |
| .725 | | .0749 | | | .0190 | |
| .750 | | | | | | |
| .808 | | .0271 | | | | |
| .832 | .0348 | | | | | |
| .850 | | | .0004 | | | .0367 |
| .900 | | -.0061 | | | | |
| .950 | | | | -.0273 | | |
| .966 | .0844 | | | | | |



DATE 03 DEC 74

TABULATED SOURCE DATA - (A12C (MIN.) PRESSURES)

PAGE 3

AVES 07-710 (A12C ON T1 SE LOWER WING PRESSURE) (15.2120)

MACH (1) = 3.499 BETA (1) = 4.350 PTO = 2308.556 PO = 30.000 R/FT = 1.744 Q = 279.596

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5340 | .6750 | .7800 | .8870 |
|------|-------|-------|-------|-------|-------|-------|
| X/C | | | | | | |
| .090 | | | | .1975 | | .2310 |
| .400 | | | | .1139 | | |
| .419 | | .1469 | | | | |
| .590 | | | .1122 | | | |
| .600 | | | | | | .1364 |
| .697 | .2039 | | | | | |
| .700 | | | | .0346 | | |
| .725 | | | .1360 | | .0597 | |
| .750 | | | | | | |
| .808 | | .0814 | | | | |
| .832 | .0866 | | | .0229 | | .0602 |
| .850 | | | .0127 | | | |
| .900 | | | | | | |
| .990 | | | | | | |
| .966 | .0240 | | | | | |

MACH (1) = 3.499 BETA (1) = 6.340 PTO = 2308.556 PO = 30.000 R/FT = 1.744 Q = 259.596

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5340 | .6750 | .7800 | .8870 |
|------|-------|-------|-------|-------|-------|-------|
| X/C | | | | | | |
| .090 | | | | .2200 | | .2596 |
| .400 | | | | .1626 | | |
| .419 | | .1336 | | | | |
| .590 | | | .1900 | | | |
| .600 | | | | | | .1910 |
| .697 | .2914 | | | .0769 | | |
| .700 | | | | | | |
| .725 | | | .1662 | | .0753 | |
| .750 | | | | | | |
| .808 | | .0668 | | | | |
| .832 | .0749 | | | .0553 | | .0687 |
| .850 | | | .0490 | | | |
| .900 | | | | | | |
| .990 | | | | | | |
| .966 | .0108 | | | | | |

DATE 24 DEC 74

TABULATED SOURCE DATA - (AIRC WING PRESSURES)

PAGE 010

MACH (1) = 3.400 Q_{∞} (8) = 7.030 P_{T0} = 2308.556 P_0 = 30.000 R/Γ = 1.744 Q = 259.550
 ASES 87-710 (A12C C1 T1 S2 LOWER WING PRESSURE) (LBZ180)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2000 | .4270 | .5340 | .6750 | .7800 | .8870 |
|------|-------|-------|-------|-------|-------|-------|
| X/C | | | | | | |
| .090 | | | | .2530 | | .2791 |
| .400 | | | | .1842 | | |
| .419 | | .2068 | | | | |
| .590 | | | .2130 | | | |
| .600 | | | | | | .2100 |
| .697 | .2323 | | | .0923 | | |
| .700 | | | | | | |
| .723 | | | .1968 | | | |
| .750 | | | | .0935 | | |
| .708 | | .0982 | | | | |
| .832 | .0838 | | | | | |
| .890 | | | .0889 | | | .0974 |
| .900 | | .0522 | | | | |
| .950 | | | .0451 | | | |
| .966 | .0140 | | | | | |

DATE 28 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSES)

(LBZIES) (12 APR 74)

AMES 87-710 1A12C OF T1 LOWER WING PRESURE

PARAMETRIC DATA

ALPHA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = .000

REFERENCE DATA

SWEP = 8000.0000 SQ.FT. WARP = 953.0000 IN.
LREF = 1328.0000 IN. WARP = .0000 IN.
SWEP = 1328.0000 IN. WARP = 400.0000 IN.
SCALE = .0190 SCALE

MACH (1) = 3.499 BETA (1) = -7.660 PTO = 2501.444 PO = 30.000 R/FY = 1.772 Q = 259.000

SECTION (1) 0.0125 INCH WING DEPENDENT VARIABLE CP

X/B .8900 .4270 .5340 .8750 .7800 .8875

| X/C | | | | | |
|------|--------|--------|--------|--|--------|
| .090 | | | | | .0279 |
| .400 | | | -.0436 | | |
| .419 | | | -.0295 | | |
| .590 | | -.0341 | | | |
| .600 | | -.0412 | | | -.0241 |
| .697 | -.0502 | | | | |
| .700 | | | -.0436 | | |
| .725 | | -.0261 | | | -.0567 |
| .750 | | | | | |
| .768 | | -.0702 | | | |
| .832 | -.0764 | | | | |
| .850 | | -.0821 | | | -.0250 |
| .900 | | -.0655 | | | |
| .950 | | -.0732 | | | |
| .968 | -.0766 | | | | |

MACH (1) = 3.499 BETA (1) = -8.570 PTO = 2501.444 PO = 30.000 R/FY = 1.772 Q = 259.000

SECTION (1) 0.0125 INCH WING DEPENDENT VARIABLE CP

X/B .8900 .4270 .5340 .8750 .7800 .8875

| X/C | | | | | |
|------|--------|--------|--------|--|--------|
| .090 | | | | | .0403 |
| .400 | | | -.0336 | | |
| .419 | | | -.0275 | | |
| .590 | | -.0261 | | | |
| .600 | | -.0401 | | | -.0196 |
| .697 | -.0806 | | | | |
| .700 | | | -.0396 | | |
| .725 | | -.0210 | | | -.0545 |
| .750 | | | | | |
| .808 | -.0896 | | | | |
| .832 | -.0796 | | | | |
| .850 | | -.0810 | | | -.0256 |
| .900 | | -.0606 | | | |
| .950 | | -.0737 | | | |
| .968 | -.0833 | | | | |



DATE 35 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.499 BETA (3) = -4.590 PTO = 2501.444 PO = 30.000 R/P = 1.772 Q = 259.000
 AVES 87-710 1A12C Q1 T1 LOWER WING PRESSURE (LBZ123)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5340 | .6730 | .7800 | .8870 |
|------|--------|--------|--------|--------|--------|--------|
| X/C | | | | | | |
| .090 | | | | -.0756 | | .0772 |
| .400 | | | | -.0231 | | |
| .419 | | -.0319 | | | | |
| .550 | | | -.0278 | | | .0042 |
| .600 | | | | | | |
| .697 | -.0347 | | | -.0349 | | |
| .700 | | | | | | |
| .725 | | | -.0134 | | -.0556 | |
| .750 | | | | | | |
| .806 | | -.0642 | | | | |
| .832 | -.0735 | | | -.0562 | | -.0164 |
| .850 | | | -.0732 | | | |
| .900 | | | | -.0698 | | |
| .950 | | | | | | |
| .966 | -.0608 | | | | | |

MACH (1) = 3.499 BETA (4) = -2.200 PTO = 2501.444 PO = 30.000 R/P = 1.772 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5340 | .6730 | .7800 | .8870 |
|------|--------|--------|--------|--------|--------|-------|
| X/C | | | | | | |
| .090 | | | | .0266 | | .1252 |
| .400 | | | | -.0061 | | |
| .419 | | -.0439 | | | | |
| .550 | | | -.0434 | | | .0315 |
| .600 | | | | | | |
| .697 | -.0062 | | | -.0425 | | |
| .700 | | | | | | |
| .725 | | | -.0168 | | -.0436 | |
| .750 | | | | | | |
| .806 | | -.0461 | | | | |
| .832 | -.0469 | | | | | |
| .850 | | | | -.0670 | | .0000 |
| .900 | | | -.0687 | | -.0784 | |
| .950 | | | | | | |
| .966 | -.0778 | | | | | |

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

MACH (1) = 3.499 BETA (3) = -.010 PTO = 2301.444 PO = 30.000 R/FT = 1.772 Q = 259.000
 ARES 87-710 1A12C OI T1 LOWER WING PRESSURE (LB/IN²)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5340 | .6730 | .7800 | .8870 |
|------|--------|--------|--------|-------|--------|-------|
| X/C | | | | | | |
| .090 | | | | .0668 | .1761 | |
| .400 | | | | .0211 | | |
| .419 | | -.0325 | | | | |
| .590 | | | -.0172 | | | |
| .600 | | | | | .0624 | |
| .697 | .0169 | | | | | |
| .700 | | | -.0241 | | | |
| .725 | | | .0025 | | | |
| .790 | | | | | -.0203 | |
| .808 | | -.0309 | | | | |
| .832 | -.0161 | | | | | |
| .850 | | | -.0540 | | .0173 | |
| .900 | | -.0564 | | | | |
| .950 | | | -.0692 | | | |
| .966 | -.0661 | | | | | |

MACH (1) = 3.499 BETA (6) = 2.170 PTO = 2301.444 PO = 30.000 R/FT = 1.772 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5340 | .6730 | .7800 | .8870 |
|------|--------|--------|--------|--------|-------|-------|
| X/C | | | | | | |
| .090 | | | | .1072 | .1667 | |
| .400 | | | | .0555 | | |
| .419 | | .0075 | | | | |
| .590 | | | .0179 | | | |
| .600 | | | | | .0667 | |
| .697 | .0266 | | | -.0006 | | |
| .700 | | | .0266 | | | |
| .725 | | | | | .0021 | |
| .790 | | -.0126 | | | | |
| .808 | | | | | | |
| .832 | -.0066 | | | | | |
| .850 | | | -.0376 | | .0337 | |
| .900 | | -.0441 | | | | |
| .950 | | | -.0590 | | | |
| .966 | -.0631 | | | | | |



DATE 05 DEC 74

TABULATED SOURCE DATA - (A12C WING PRESSURES)

PAGE 923

MACH (1) = 3.499 BETA (7) = 4.350 PTO = 2501.444 PO = 30.000 R/PT = 1.772 Q = 259.000
 AMES 87-710 (LBZ123) LOWER WING PRESSURE

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5340 | .6750 | .7800 | .8870 |
|------|--------|-------|--------|--------|-------|-------|
| X/C | | | | | | |
| .050 | | | | .1463 | | .2285 |
| .400 | | | | .0973 | | |
| .419 | | .0211 | | | | |
| .550 | | | .0402 | | | .1245 |
| .600 | | | | | | |
| .697 | .0708 | | | | | |
| .700 | | | | .0260 | | |
| .725 | | | .0670 | | | .0320 |
| .750 | | | | | | |
| .806 | | .0129 | | | | |
| .832 | .0227 | | | | | |
| .890 | | | -.0164 | | | .0576 |
| .900 | | | -.0241 | | | |
| .950 | | | | -.0382 | | |
| .966 | -.0327 | | | | | |

MACH (1) = 3.499 BETA (8) = 6.530 PTO = 2501.444 PO = 30.000 R/PT = 1.772 Q = 259.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5340 | .6750 | .7800 | .8870 |
|------|--------|-------|--------|--------|-------|-------|
| X/C | | | | | | |
| .050 | | | | .2151 | | .2777 |
| .400 | | | | .1317 | | |
| .419 | | .0690 | | | | |
| .550 | | | .0967 | | | .1617 |
| .600 | | | | | | |
| .697 | .0901 | | | | | |
| .700 | | | | .0533 | | |
| .725 | | | .1071 | | | .0604 |
| .750 | | | | | | |
| .806 | | .0392 | | | | |
| .832 | .0469 | | | | | |
| .850 | | | | .0080 | | .0746 |
| .900 | | | -.0022 | | | |
| .950 | | | | -.0158 | | |
| .966 | -.0434 | | | | | |

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 924

MACH (1) = 3.498 BETA (9) = 7.330 P10 = 2301.444 P0 = 30.000 R/FT = 1.772 Q = 299.000
 (LB/2123)

AVES 87-710 1A12C O2 T1 LOWER WING PRESSURE

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .2990 | .4270 | .5340 | .6730 | .7800 | .8870 |
|------|--------|-------|-------|-------|-------|-------|
| X/C | | | | | | |
| .090 | | | | .2487 | | .3015 |
| .400 | | | | .1534 | | |
| .419 | | .1283 | | | | |
| .550 | | | .1354 | | | |
| .800 | | | | | | .1845 |
| .697 | .1190 | | | | | |
| .700 | | | | .0691 | | |
| .725 | | .1283 | | | | |
| .750 | | | | | .0745 | |
| .806 | | .0845 | | | | |
| .832 | .0849 | | | | | |
| .850 | | | | .0226 | | |
| .900 | | .0070 | | | | .0870 |
| .950 | | | | .0016 | | |
| .966 | -.0379 | | | | | |

DATE 08 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURES

PAGE 925

AVES -- 710 1A12C OF TI LOWER WING PRESSURE (LBZ124) (12 APR 74)

REFERENCE DATA

SREF = 2000.0000 SQ.FT. XREF = 953.0000 IN.
 LREF = 1328.0000 IN. YREF = .0000 IN.
 ZREF = 1328.0000 IN. ZREF = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = 3.000
 OPR = 23.660 G1MBAL = 1.000
 RUDDER = .000

MACH (1) = 3.499 BETA (1) = -7.660 PTO = 2304.077 PO = 30.000 R/PT = 1.757 Q = 259.308

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

| | | | | | | |
|------|--|--|--|--|--|--|
| .090 | | | | | | |
| .400 | | | | | | |
| .419 | | | | | | |
| .550 | | | | | | |
| .600 | | | | | | |
| .697 | | | | | | |
| .700 | | | | | | |
| .725 | | | | | | |
| .750 | | | | | | |
| .808 | | | | | | |
| .832 | | | | | | |
| .900 | | | | | | |
| .950 | | | | | | |
| .966 | | | | | | |

MACH (1) = 3.499 BETA (2) = -6.570 PTO = 2304.077 PO = 30.000 R/PT = 1.757 Q = 259.308

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

| | | | | | | |
|------|--|--|--|--|--|--|
| .090 | | | | | | |
| .400 | | | | | | |
| .419 | | | | | | |
| .550 | | | | | | |
| .600 | | | | | | |
| .697 | | | | | | |
| .700 | | | | | | |
| .725 | | | | | | |
| .750 | | | | | | |
| .808 | | | | | | |
| .832 | | | | | | |
| .850 | | | | | | |
| .900 | | | | | | |
| .950 | | | | | | |
| .966 | | | | | | |

DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C(WING PRESSURES)

MACH (1) = 3.499 BETA (3) = -4.380 PTO = 2304.077 PO = 30.000 R/PT = 1.757 Q = 259.308
 ANS 67-710 1A12C OI T1 LOWER WING PRESSURE (LB/IN²)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8870

| X/C | | | | | |
|------|--|--|--|--|--|
| .090 | | | | | |
| .400 | | | | | |
| .419 | | | | | |
| .550 | | | | | |
| .600 | | | | | |
| .697 | | | | | |
| .700 | | | | | |
| .725 | | | | | |
| .750 | | | | | |
| .806 | | | | | |
| .832 | | | | | |
| .850 | | | | | |
| .900 | | | | | |
| .950 | | | | | |
| .966 | | | | | |

MACH (1) = 3.499 BETA (4) = -2.800 PTO = 2304.077 PO = 30.000 R/PT = 1.757 Q = 259.308

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7600 .8870

| X/C | | | | | |
|------|--|--|--|--|--|
| .090 | | | | | |
| .400 | | | | | |
| .419 | | | | | |
| .550 | | | | | |
| .600 | | | | | |
| .697 | | | | | |
| .700 | | | | | |
| .725 | | | | | |
| .750 | | | | | |
| .806 | | | | | |
| .832 | | | | | |
| .850 | | | | | |
| .900 | | | | | |
| .950 | | | | | |
| .966 | | | | | |

CASE 15 SEC 74 RELATED SOURCE DATA (AIRCRAFT PRESSURES)

WACH (1) = 3.459 BETA (5) = -0.020 PTO = 2304.077 PO = 30.000 P/PT = 1.757 Q = 259.308
 A40 57-X10 14120 01 71 LOWER WING PRESSURE (LB/IN²)

SECTION 1100B100 WING DEPENDENT VARIABLE CP

Y/B .2890 .4270 .5340 .6730 .7800 .8870

| X/C | .050 | .080 | .1543 |
|------|---------|--------|--------|
| .430 | .0028 | .0215 | |
| .419 | | | |
| .550 | -.00204 | | |
| .450 | .0002 | | .0536 |
| .437 | .0123 | | |
| .774 | | -.0227 | |
| .725 | .0180 | | -.0097 |
| .750 | | | |
| .706 | -.0215 | | |
| .432 | -.0256 | | |
| .430 | | -.0513 | |
| .500 | -.0475 | | .0154 |
| .540 | | -.0643 | |
| .546 | -.0745 | | |

WACH (1) = 3.459 BETA (6) = 2.170 PTO = 2304.077 PO = 30.000 P/PT = 1.757 Q = 259.308

SECTION 1100B100 WING DEPENDENT VARIABLE CP

Y/B .2890 .4270 .5340 .6730 .7800 .8870

| X/C | .050 | .080 | .1555 |
|------|--------|--------|-------|
| .430 | .1032 | .0571 | |
| .419 | | | |
| .550 | -.0024 | .0177 | |
| .450 | | | .0904 |
| .437 | .0420 | | |
| .750 | | .0001 | |
| .725 | | .0394 | |
| .750 | | | .0031 |
| .706 | -.0078 | | |
| .432 | -.0055 | | |
| .430 | | -.0357 | |
| .500 | | -.0379 | .0347 |
| .540 | | -.0521 | |
| .546 | -.0623 | | |

DATE 09 DEC 74 TABULATED SOURCE DATA - 1A12C WING PRESSURES

WACH (1) = 3.499 BETA (7) = 4.350 PTO = 2304.077 PO = 30.000 R/PT = 1.757 Q = 259.308
 LINES 07-710 1A12C ON T1 LOWER WING PRESSURE (LBZ124)

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .8990 | .4270 | .5340 | .6750 | .7800 | .8870 |
|------|--------|--------|--------|-------|-------|-------|
| X/C | | | | | | |
| .050 | | | .1489 | | .2275 | |
| .400 | | | .0972 | | | |
| .419 | | .0246 | | | | |
| .550 | | | .0455 | | | |
| .800 | | | | | .1241 | |
| .657 | .0860 | | | | | |
| .700 | | | .0281 | | | |
| .725 | | | .0683 | | | |
| .750 | | | | .0301 | | |
| .806 | | .0159 | | | | |
| .832 | .0227 | | | | | |
| .850 | | | -.0181 | | .0567 | |
| .900 | | -.0203 | | | | |
| .950 | | | -.0354 | | | |
| .966 | -.0550 | | | | | |

WACH (1) = 3.499 BETA (8) = 6.540 PTO = 2304.077 PO = 30.000 R/PT = 1.757 Q = 259.308

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .8990 | .4270 | .5340 | .6750 | .7800 | .8870 |
|------|--------|-------|--------|-------|-------|-------|
| X/C | | | | | | |
| .050 | | | .2009 | | .2790 | |
| .400 | | | .1355 | | | |
| .419 | | .0933 | | | | |
| .550 | | | .0977 | | .1627 | |
| .800 | | | | | | |
| .697 | .0998 | | | .0928 | | |
| .700 | | | | | .0584 | |
| .725 | | | .1071 | | | |
| .750 | | | | | | |
| .806 | | .0442 | | | | |
| .832 | .0505 | | | | | |
| .850 | | | .0054 | | .0776 | |
| .900 | | .0004 | | | | |
| .950 | | | -.0162 | | | |
| .966 | -.0401 | | | | | |

DATE 04 DEC 74 TABULATED SOURCE DATA - (AIRCRAFTING PRESSURES)

AVE: 87-710 1A12C 01 T1 S1 M3.3 PLUS LO W46 PRS (LB2129) (12 APR 74)

PARAMETRIC DATA

ALPHA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = .000

REFERENCE DATA

WREF = 2090.0000 SQ.FT. WREF = 993.0000 IN.
LREF = 1328.0000 IN. LREF = .0000 IN.
BREF = 1328.0000 IN. BREF = 400.0000 IN.
SCALE = .0190 SCALE

WACH (1) = 3.002 BETA (1) = -7.290 PTO = 2298.596 PO = 62.000 R/PT = 2.263 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.080 .0312 .0244
.400 .0151
.419 .0417
.590 .0323
.600
.697 .0212
.700 .0154
.725 .0579
.750
.808 .0428
.832 .0309
.850 .0135
.900 .0477
.950 .0119
.966 .0474

WACH (1) = 3.002 BETA (2) = -6.240 PTO = 2298.596 PO = 62.000 R/PT = 2.263 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

.080 .0255 .0674
.400 .0432
.419 .0539
.590 .0399
.600
.697 .0215
.700 .0180
.725 .0532
.750 .0022
.808 .0448
.832 .0250
.850 .0119
.900 .0416
.950 .0086
.966 .0431



DATE 01 DEC 74 TAILLANT SOURCE DATA - (AIRBORNE PRESSURES)

AS-87-710 (1120) OF 11 S1 W3.5 PLUS LO W3 PPS (LBZ129)

MACH (1) = 3.002 BETA (3) = -4.150 PTC = 2298.556 PO = 62.000 R/PT = 2.263 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C
 .050 .0568 .0946
 .400 .0090
 .419 .0287 .0161
 .550 .0161
 .600 .0327
 .697 .0250 .0111
 .750 .0413 .0408
 .780 .0377 .0340
 .832 .0137 .0336
 .850 .0438
 .900 .0387
 .950 .0336
 .966 .0438

MACH (1) = 3.002 BETA (4) = -2.000 PTC = 2298.556 PO = 62.000 R/PT = 2.263 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .8990 .4270 .5340 .6750 .7800 .8870

X/C
 .090 .1366 .1202
 .400 .0362
 .419 .0294 .0275
 .550 .0391
 .600 .0818
 .697 .0111
 .750 .0003 .0336
 .780 .0384
 .832 .0413 .0516
 .850 .0183 .0767
 .900 .0395
 .950 .0395

TABLE 1. SUMMARY OF RESULTS FOR THE 1970-1971 FISHING YEAR

ANALYSIS OF VARIANCE FOR THE 1970-1971 FISHING YEAR

WATER (1) = 3.002 BETA (6) = 2.120 PTO = 2298.556 PO = 62.000 R/PT = 2.263 Q = 393.000

DEPENDENT VARIABLE CP

SECTION (1) OBSERVED WING

Y/B .2540 .4270 .5340 .6730 .7800 .8870

Y/C
.000
.400
.419
.490
.600
.697
.720
.725
.750
.808
.812
.850
.900
.950
.966
.0043
-.0008
-.0024
-.0076
-.0379
-.0071
-.0712
-.0043

WATER (1) = 3.002 BETA (6) = 2.120 PTO = 2298.556 PO = 62.000 R/PT = 2.263 Q = 393.000

DEPENDENT VARIABLE CP

SECTION (1) OBSERVED WING

Y/B .2540 .4270 .5340 .6730 .7800 .8870

Y/C
.000
.400
.419
.490
.600
.697
.720
.725
.750
.808
.812
.850
.900
.950
.966
.0043
-.0008
-.0024
-.0076
-.0379
-.0071
-.0712
-.0043



DATE 08 DEC 74 TABULATED SOURCE DATA - (A12C (WING PRESSURES))

AMES 87-710 (A12C ON T1 S1 W3.5 PLMS LO WING PRS (LBZ129))

MACH (1) = 3.002 BETA (P) = 4.220 PTO = 2298.556 PO = 62.000 R/PT = 2.263 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | X/C | .2590 | .4270 | .5340 | .6750 | .7800 | .8870 |
|------|--------|-------|-------|-------|-------|-------|-------|
| .090 | .1739 | | | | | | .2879 |
| .400 | .1073 | | | | | | |
| .419 | .1271 | | | | | | |
| .550 | .0965 | | | | | | .1137 |
| .600 | | | | | | | |
| .697 | .3318 | | | | | | |
| .700 | | | | | | | |
| .720 | | | | | | | |
| .750 | | | | | | | .0298 |
| .760 | .0349 | | | | | | |
| .832 | .0180 | | | | | | |
| .850 | .0227 | | | | | | .0144 |
| .900 | -.0035 | | | | | | |
| .950 | -.0078 | | | | | | |
| .960 | .0507 | | | | | | |

MACH (1) = 3.002 BETA (S) = 6.310 PTO = 2298.556 PO = 62.000 R/PT = 2.263 Q = 393.000

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | X/C | .2590 | .4270 | .5340 | .6750 | .7800 | .8870 |
|------|--------|-------|-------|-------|-------|-------|-------|
| .090 | .2580 | | | | | | .2781 |
| .400 | .1610 | | | | | | |
| .419 | .2785 | | | | | | |
| .550 | .2240 | | | | | | .1653 |
| .600 | | | | | | | |
| .697 | .2038 | | | | | | |
| .700 | | | | | | | |
| .720 | .1076 | | | | | | |
| .750 | .1370 | | | | | .0632 | |
| .808 | .0780 | | | | | | |
| .832 | .0770 | | | | | | .0438 |
| .850 | .0773 | | | | | | |
| .900 | .0198 | | | | | | .0250 |
| .950 | .0250 | | | | | | |
| .960 | -.0072 | | | | | | |

DATE 05 DEC 74

TABULATED SOURCE DATA - 1A12C WING PRESSURE3)

PAGE 935

AVES 87-710 1A12C 01 T1 S1 W-3.5 PLMS LO WING PRS (1.92130) (12 APR 74)

REFERENCE DATA

SREF = 2890.0000 SQ.FT. XMRP = 3-3.0000 IN.
 LREF = 1328.0000 IN. YMRP = .0000 IN.
 BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
 SCALE = .0190 SCALE

PARAMETRIC DATA

ALPHA = .000 POWER = .000
 GIMBAL = 1.000 RUDDER = .000

MACH (1) = 3.499 BETA (1) = -7.660 PTO = 2297.000 PO = 30.000 R/PT = 1.752 Q = 256.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .0195 .0264
 .400 .0149
 .419 .0192 .0142
 .530 .0142
 .600 .0016
 .697 .0016
 .701 .0009
 .725 .0094
 .750 .0170
 .806 .0062
 .832 .0025
 .850 .0195 .0089
 .900 .0047
 .950 .0003
 .966 .0003

MACH (1) = 3.499 BETA (2) = -6.570 PTO = 2297.000 PO = 30.000 R/PT = 1.752 Q = 256.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

.090 .0319 .0619
 .400 .0128
 .419 .0209
 .530 .0209
 .600 .0023
 .697 .0057
 .725 .0422
 .750 .0422
 .806 .0192
 .832 .0099
 .850 .0123
 .900 .0155
 .950 .0151
 .966 .0176

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (MIND PRESSURES)

AVES 87-710 1A12C OX TL S1 MEX.5 PLMS LO MAG PPS 0.871800
 MACH (1) = 3.499 BETA (2) = -4.380 PTC = 2297.000 PO = 30.000 P/F = 1.732 Q = 258.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6730 .7800 .8870

| X/C | | | | | |
|------|-------|--------|--------|--------|--------|
| .030 | | | .0804 | | .0973 |
| .400 | | | .0198 | | |
| .419 | | .0184 | | | |
| .550 | | .0022 | | | .0264 |
| .600 | | | | | |
| .697 | .0175 | | -.0223 | | |
| .700 | | | | | |
| .725 | | .0090 | | -.0374 | |
| .750 | | | | | |
| .806 | .0186 | | | | |
| .852 | .0214 | | | | |
| .930 | | -.0074 | -.0451 | | -.0014 |
| .900 | | | -.0500 | | |
| .950 | | | | | |
| .966 | .0283 | | | | |

MACH (1) = 3.499 BETA (4) = -2.200 PTC = 2297.000 PO = 30.000 R/F = 1.732 Q = 258.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5540 .6730 .7800 .8870

| X/C | | | | | |
|------|--------|--------|--------|--------|-------|
| .030 | | | .1126 | | .1519 |
| .400 | | | .0591 | | |
| .419 | | .0376 | | | |
| .550 | | .0203 | | | .0510 |
| .600 | | | | | |
| .697 | .0483 | | -.0063 | | |
| .700 | | | | | |
| .725 | | .0187 | | -.0183 | |
| .750 | | | | | |
| .806 | -.0087 | | | | |
| .852 | .0252 | | | | |
| .930 | | -.0374 | | | .0133 |
| .900 | | -.0569 | | | |
| .950 | | | -.0592 | | |
| .966 | .0283 | | | | |



DATE 03 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 937

AMES 87-710 1A12C 01 T1 S1 M3.5 PLMS LO WING PRS (LBZ130)

MACH (1) = 3.499 BETA (5) = -.010 PTO = 2297.000 PO = 30.000 R/PT = 1.752 Q = 256.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

| | | | | | |
|------|-------|--------|--------|--|-------|
| .090 | | | .0886 | | .1663 |
| .400 | | | .0886 | | |
| .419 | | .0724 | | | |
| .550 | | | .0461 | | |
| .600 | | | | | .0690 |
| .697 | | | | | |
| .700 | .0499 | | | | |
| .725 | | | .0237 | | |
| .750 | | .0313 | | | .0122 |
| .806 | | -.0027 | | | |
| .832 | .0062 | | | | |
| .850 | | | -.0176 | | .0246 |
| .900 | | -.0395 | | | |
| .950 | | -.0445 | | | |
| .966 | .0121 | | | | |

MACH (1) = 3.499 BETA (6) = 2.170 PTO = 2297.000 PO = 30.000 R/PT = 1.752 Q = 256.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

Y/B .2990 .4270 .5340 .6750 .7800 .8870

X/C

| | | | | | |
|------|-------|--------|--------|--|-------|
| .090 | | | .1284 | | .2238 |
| .400 | | | .0685 | | |
| .419 | | .1013 | | | |
| .550 | | | .0750 | | .1044 |
| .600 | | | | | |
| .697 | .1837 | | | | |
| .700 | | | .0444 | | |
| .725 | | .0849 | | | .0138 |
| .750 | | | | | |
| .806 | | .0367 | | | |
| .832 | .0214 | | | | |
| .850 | | | -.0042 | | .0389 |
| .900 | | -.0042 | | | |
| .950 | | -.0276 | | | |
| .966 | .0066 | | | | |

DATE 01 DEC 74

TABULATED SOURCE DATA - 1A12C (WING PRESSURES)

PAGE 93A

AMES 87-710 1A12C OX T1 S1 MEX.5 PLMS LO WING PMS

(LBZ130)

MACH (1) = 3.499 BETA (7) = 4.560 PTO = 2297.000 PO = 30.000 R/PT = 1.752 Q = 256.556

SECTION (1) OX T1 S1 MEX.5 PLMS LO WING PMS

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

| | | |
|------|--------|--------|
| .090 | .1703 | .2243 |
| .400 | .1016 | |
| .419 | .1479 | |
| .550 | .0981 | |
| .600 | | .1316 |
| .697 | .1753 | |
| .700 | | |
| .725 | .1156 | |
| .750 | | .0313 |
| .806 | .0559 | |
| .832 | | |
| .850 | .0513 | |
| .900 | .0040 | .0569 |
| .950 | | -.0091 |
| .966 | -.0066 | |

MACH (1) = 3.499 BETA (8) = 6.540 PTO = 2297.000 PO = 30.000 R/PT = 1.752 Q = 256.556

SECTION (1) OX T1 S1 MEX.5 PLMS LO WING PMS

Y/B .2990 .4270 .5340 .6730 .7800 .8870

X/C

| | | |
|------|--------|-------|
| .090 | .2504 | .2479 |
| .400 | .1683 | |
| .419 | .1124 | |
| .550 | .1524 | |
| .600 | | .1668 |
| .697 | .2171 | |
| .700 | | |
| .725 | .1672 | |
| .750 | | .0761 |
| .806 | .0926 | |
| .832 | .0959 | |
| .850 | | |
| .900 | .0373 | .0681 |
| .950 | .0319 | .0199 |
| .966 | -.0044 | |

DATE 05 DEC 74 TABULATED SOURCE DATA - 1A12C (1/10 IN PRESSURES)

AVES 67-710 (A12C OF TI 51 N43.5 PLMS LO WAG PRS (0.821301)

MACH (1) = 5.499 BETA (8) = 7.630 PTO = 2297.000 PO = 30.000 R/PT = 1.752 Q = 250.556

SECTION (1) ORBITER WING DEPENDENT VARIABLE CP

| Y/B | .8990 | .4270 | .5340 | .6730 | .7800 | .8870 |
|------|-------|-------|-------|-------|-------|-------|
| X/C | | | | | | |
| .050 | | | | .2707 | | .2723 |
| .400 | | | | .1943 | | |
| .419 | | .2082 | | | | |
| .550 | | | .1972 | | | .2123 |
| .600 | | | | | | |
| .697 | .1980 | | | | | |
| .700 | | | | .0858 | | |
| .725 | | | .1874 | | | |
| .750 | | | | | .0940 | |
| .806 | | .1079 | | | | |
| .832 | .1150 | | | | | |
| .850 | | | | .0640 | | .1022 |
| .900 | | | .0416 | | | |
| .950 | | | | .0378 | | |
| .966 | .0016 | | | | | |